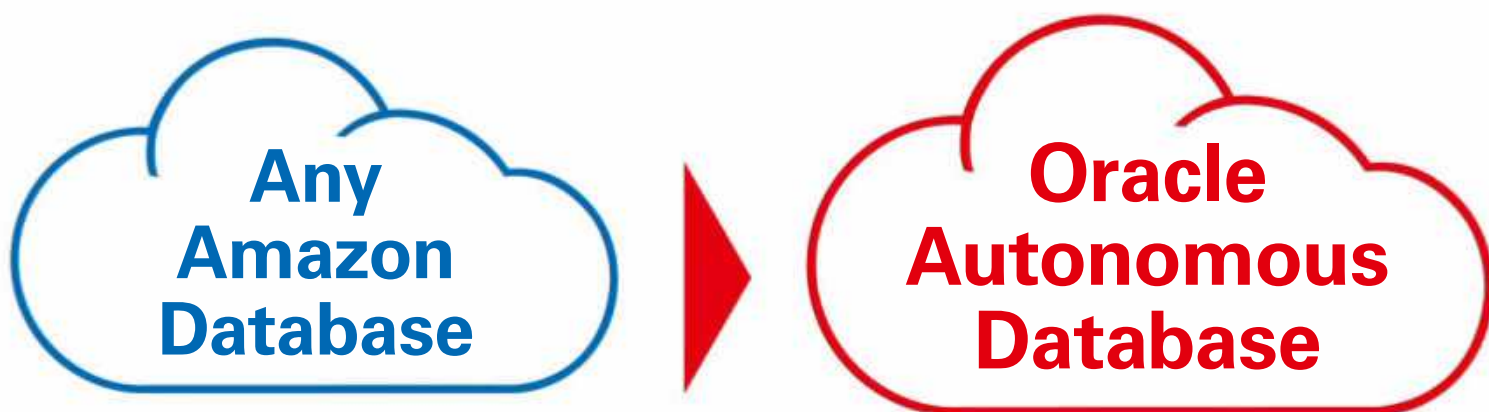


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Modern love

Dating in the digital age





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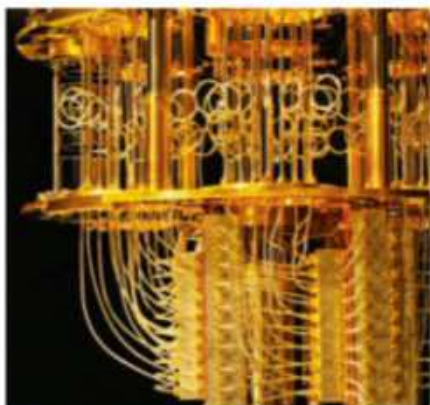
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Politics



A highway bridge collapsed in Genoa, **Italy**, during a rain-storm, killing at least 38 people. The reasons for the collapse are under investigation. Italy's populist government vowed to spend more on infrastructure—something some of its members had previously dismissed as unnecessary.

America continued to demand that **Turkey** release a pastor, Andrew Brunson, who is being held on dubious terrorism charges. Donald Trump said American sanctions would tighten until Mr Brunson is freed. Turkey's president, Recep Tayyip Erdogan, retaliated by raising tariffs on American goods and vowing to boycott Apple. Turkish smart-phones will do, he said.

Protesters in **Moscow** denounced the imprisonment of a group of teenagers belonging to a political discussion group called "New Greatness". The teenagers were sentenced to up to two years for extremism.

The European Commission gave **Poland** one month to change its new laws that give the government more influence over the appointment of judges. The commission says they violate EU rules on the independence of the judiciary. If Poland fails to act, the commission may turn to the European Court of Justice.

Serbia and **Kosovo** said they might negotiate border changes to move ethnically Albanian regions into Kosovo and ethnically Serbian ones into Serbia. Most European countries have abhorred the

idea of moving borders for ethnic reasons since the second world war. A deal could help Serbia accept the independence of Kosovo, which used to be one of its provinces.

An unwelcome return

An outbreak of **Ebola** in the north-east of the Democratic Republic of Congo claimed more lives, bringing the death toll to at least 41. The director-general of the World Health Organisation appealed for an end to fighting in the region, which has hindered aid workers. It is the second outbreak of the disease in the country this year. The first was declared to be over in July.

For the first time in weeks **Israel** allowed commercial goods to pass through its border crossing with **Gaza** at Kerem Shalom. Israel had blocked all but humanitarian deliveries in response to incendiary kite and balloon attacks by Palestinians. A truce was recently announced. Egypt is trying to broker a long-term ceasefire between Israel and Hamas, the militant group that controls Gaza.

Tunisia's president, Beji Caid Essebsi, said he would introduce a bill to give women and men equal inheritance rights. Religious conservatives objected. Laws inspired by the Koran restrict women to half of what men get.

Time for a confession

Catholic priests in **Pennsylvania** abused hundreds of children over several decades, according to a report by a grand jury. The report described how senior church officials systematically covered up the abuse. Almost all the crimes have passed the statute of limitations for trials to be held.

Kris Kobach became the Republican candidate for governor in **Kansas** after the incumbent, Jeff Colyer, conceded defeat in the recent close-run primary. Mr Kobach, an outspoken supporter of Donald Trump, is likely to win in November.



Vermont's Democratic primary for governor was won by a transgender woman. Christine Hallquist, a former electricity executive, is the first transgender person from either party to run as a candidate for governor. She faces an uphill task unseating Phil Scott, the Republican incumbent.

A rally by **white nationalists** in Washington failed to live up to its hype. Only two dozen marchers turned up.

Fuel in a crisis

President Nicolás Maduro said that the official price of petrol in **Venezuela**, which is close to zero, will rise to international levels. He hopes the higher price will reduce queues. The almost-free petrol is almost never available to ordinary Venezuelans, since regime cronies tend to grab it and sell it on the black market at a colossal mark-up. The government arrested 14 more people for their alleged role in an attempt to assassinate Mr Maduro, bringing the total number of arrests to 26.

Costa Rica's supreme court ruled that the country's ban on same-sex marriage is unconstitutional and told the legislative assembly to change the law within 18 months. If the legislature does not act, the ban will automatically lapse. In January the Inter-American Court of Human Rights, which is based in Costa Rica's capital, San José, decided that the two-dozen countries that fall within its jurisdiction must accept gay marriage.

Mario Abdo Benítez, a conservative former senator, took office as **Paraguay's** president. His father was the private

secretary of Alfredo Stroessner, the country's dictator from 1954 to 1989.

Bolder than before

The Taliban were pushed out of Ghazni in **Afghanistan**, five days after they launched a brash assault on the city. The attack by the emboldened insurgents took the government in Kabul by surprise. Also, dozens were killed by a suicide-bomber at an education centre in the capital. Suspicion fell on Islamic State.

The UN accused **China** of placing a million ethnic Uighur Muslims in re-education camps in the western region of Xinjiang, where former inmates say they were forced to eat pork and pledge loyalty to the Communist Party. A Chinese official denied it, saying that a few criminals had been placed in vocational schools.



Taiwan's president, Tsai Ing-wen, made a political speech in America, the first time in 15 years a Taiwanese leader has done so. Ms Tsai's visit to the United States was her first since Congress passed an act enabling high-ranking Taiwanese and American officials to travel to each other's country. China complained.

The postmaster in the village of Odhanga in the **Indian** state of Odisha was suspended after it was discovered that he had failed to deliver thousands of letters. Although he was selective in the mail he junked and admitted the charges, he expressed little regret. Most of the letters can't be salvaged. Neither can the postmaster's job, as officials have stamped their authority and said he will probably get the sack. ▶▶

Business

Stockmarkets wobbled amid worries about Turkey's economic turmoil. After taking a battering in **foreign-exchange markets** the Turkish lira stabilised as the government brought in measures to stop short-selling of the currency and trumpeted a pledge of investment from Qatar. The episode spooked investors in other emerging markets. The Indian rupee hit a new low against the dollar. The Russian rouble and South African rand also had a stormy time.

A jury in California awarded \$289m to a schools ground-keeper with cancer after finding that weedkiller he used had not adequately described the risks to human health. The weedkiller contained glyphosate and was made by Monsanto, a chemicals company that was recently taken over by **Bayer**. The German company's share price plunged after the jury's decision.

He has the credentials

Uber appointed a new chief security officer, nine months after it admitted that hackers had obtained the names of 57m passengers and drivers. Matt Olsen is a former general counsel of America's National Security Agency. The firm also published its earnings for the second quarter. With gross bookings for its cars up by 41% compared with the same quarter last year, net revenue, after paying its drivers and other costs, surged to \$2.8bn. Uber made another net loss, however.

Home Depot published its quarterly earnings. Seen as a bellwether for the American economy, the home-improvement retailer reported a big rise in net profit, to \$3.5bn, and delivered an upbeat forecast.

House of Fraser, a British department-store chain, found a buyer just hours after going into administration. Sports Direct bought all the company's 59 premises for £90m (\$115m), including the stores

that had been marked for closure. Mike Ashley, Sports Direct's boss, said he wanted to turn the chain into the "Harrods of the high street".

The **euro zone's** economy grew by 2.2% in the second quarter compared with the same period last year. Although that allayed fears that a trade row with America would damage the region, it was the euro zone's slowest rate of growth in over a year.



Britain's inflation rate increased to 2.5% in the year to July, the first time it had quickened since November 2017. The biggest jumps in prices were to transport-related costs. Separate employment data showed that 300,000 more people were in work in the second quarter than a year earlier. The unemployment rate, at 4%, is at its lowest level since 1975. With the labour

market so buoyant, zero-hours contracts fell by 12%.

New Zealand's Parliament passed a law banning most foreign non-residents from buying existing homes. The measure targets mostly Chinese investors who have been speculating in property, and who are blamed for a housing crunch that has seen prices skyrocket in places like Auckland. Australians are exempted; other foreigners can still make limited purchases of new developments.

Curiouser and curiouser

Elon Musk put more flesh on his announcement that he intends to take **Tesla** private. He explained how he arrived at the buy-out price of \$420 a share, and that the funding he had "secured" would come from Saudi Arabia's sovereign-wealth fund, which, he said, has talked to him about taking Tesla private. Mr Musk is still not off the hook about whether he followed the proper rules for disclosing his plans: the Securities and Exchange Commission has reportedly subpoenaed Tesla's directors.

Nio, a Chinese electric-car-maker, filed an IPO to list its American depository shares on the New York Stock Ex-

change. Backed by Tencent, a big technology investment company, Nio is one of several startups in China with ambitions to compete with Tesla.

Meanwhile, **Tencent** reported a drop in quarterly net profit, a rare occurrence among China's tech giants. The company's gaming business has struggled to grow. That task has been made harder by Chinese regulators objecting to new titles. This week sales of Tencent's newest game, "Monster Hunter: World", were halted because regulators had received "complaints".

A new high for business

Constellation Brands, an American drinks company which counts the Corona beer label among its assets, increased its stake in **Canopy Growth**, the world's largest publicly traded cannabis company, to 38%. Canopy, which is based in Canada, wants to expand in countries that permit marijuana for medical use, and also in places where it is allowed for pleasure. Canadians will soon be able to buy the weed for recreational use following an act of Parliament that made it legal.

For other economic data and news see Indicators section



Modern love

Online dating has changed the search for a mate, for better more than for worse



THE internet has transformed the way people work and communicate. It has upended industries, from entertainment to retailing. But its most profound effect may well be on the biggest decision that most people make—choosing a mate.

In the early 1990s the notion of meeting a partner online seemed freakish, and not a little pathetic. Today, in many places, it is normal. Smartphones have put virtual bars in people's pockets, where singletons can mingle free from the constraints of social or physical geography. Globally, at least 200m people use digital dating services every month. In America more than a third of marriages now start with an online match-up. The internet is the second-most-popular way for Americans to meet people of the opposite sex, and is fast catching up with real-world "friend of a friend" introductions.

Digital dating is a massive social experiment, conducted on one of humanity's most intimate and vital processes. Its effects are only just starting to become visible (see Briefing).

When Harry clicked on Sally

Meeting a mate over the internet is fundamentally different from meeting one offline. In the physical world, partners are found in family networks or among circles of friends and colleagues. Meeting a friend of a friend is the norm. People who meet online are overwhelmingly likely to be strangers. As a result, dating digitally offers much greater choice. A bar, choir or office might have a few tens of potential partners for any one person. Online there are tens of thousands.

This greater choice—plus the fact that digital connections are made only with mutual consent—makes the digital dating market far more efficient than the offline kind. For some, that is bad news. Because of the gulf in pickiness between the sexes, a few straight men are doomed never to get any matches at all. On Tantan, a Chinese app, men express interest in 60% of women they see, but women are interested in just 6% of men; this dynamic means that 5% of men never receive a match. In offline dating, with a much smaller pool of men to fish from, straight women are more likely to couple up with men who would not get a look-in online.

For most people, however, digital dating offers better outcomes. Research has found that marriages in America between people who meet online are likely to last longer; such couples profess to be happier than those who met offline. The whiff of moral panic surrounding dating apps is vastly overblown. Precious little evidence exists to show that opportunities online are encouraging infidelity. In America, divorce rates climbed until just before the advent of the internet, and have fallen since.

Online dating is a particular boon for those with very particular requirements. Jdate allows daters to filter out matches who would not consider converting to Judaism, for instance. A vastly bigger market has had dramatic results for same-sex daters in particular. In America, 70% of gay people meet their part-

ners online. This searchable spectrum of sexual diversity is a boon: more people can find the intimacy they seek.

There are problems with the modern way of love, however. Many users complain of stress when confronted with the brutal realities of the digital meat market, and their place within it. Negative emotions about body image existed before the internet, but they are amplified when strangers can issue snap judgments on attractiveness. Digital dating has been linked to depression. The same problems that afflict other digital platforms recur in this realm, from scams to fake accounts: 10% of all newly created dating profiles do not belong to real people.

This new world of romance may also have unintended consequences for society. The fact that online daters have so much more choice can break down barriers: evidence suggests that the internet is boosting interracial marriages by bypassing homogenous social groups. But daters are also more able to choose partners like themselves. Assortative mating, the process whereby people with similar education levels and incomes pair up, already shoulders some of the blame for income inequality. Online dating may make the effect more pronounced: education levels are displayed prominently on dating profiles in a way they would never be offline. It is not hard to imagine dating services of the future matching people by preferred traits, as determined by uploaded genomes. Dating firms also suffer from an inherent conflict of interest. Perfect matching would leave them bereft of paying customers.

The domination of online dating by a handful of firms and their algorithms is another source of worry. Dating apps do not benefit from exactly the same sort of network effects as other tech platforms: a person's friends do not need to be on a specific dating site, for example. But the feedback loop between large pools of data, generated by ever-growing numbers of users attracted to an ever-improving product, still exists. The entry into the market of Facebook, armed with data from its 2.2bn users, will provide clues as to whether online dating will inexorably consolidate into fewer, larger platforms.

While you were swiping

But even if the market does not become ever more concentrated, the process of coupling (or not) has unquestionably become more centralised. Romance used to be a distributed activity which took place in a profusion of bars, clubs, churches and offices; now enormous numbers of people rely on a few companies to meet their mate. That hands a small number of coders, tweaking the algorithms that determine who sees whom across the virtual bar, tremendous power to engineer mating outcomes. In authoritarian societies especially, the prospect of algorithmically arranged marriages ought to cause some disquiet. Competition offers some protection against such a possibility; so too might greater transparency over the principles used by dating apps to match people up.

Yet such concerns should not obscure the good that comes from the modern way of romance. The right partners can elevate and nourish each other. The wrong ones can ruin both their lives. Digital dating offers millions of people a more efficient way to find a good mate. That is something to love. ■

Emerging markets

Turkey's turmoil

An increasingly autocratic country is at the centre of an economic storm



THERE was a time when people thought that a secular, democratic Turkey would eventually accede to the European Union and join the club of wealthy liberal states known as the West. There was a time, too, a few years ago, when Turkey was a darling of emerging-market investors.

Those days are long gone. Politically, the country has been tilting away from the West for years: becoming more stridently Islamist, picking fights with NATO allies and transforming itself into a virtual autocracy under President Recep Tayyip Erdoğan. Economic-policy orthodoxy has been junked. High growth rates have depended on foreign borrowing: the amount of corporate foreign-currency debt has more than doubled since 2009. Mr Erdoğan, who believes that high interest rates magically cause inflation rather than cure it, has stopped the central bank from acting sensibly.

Both these trends have now come to a head. Turkey is gripped by a currency crisis, precipitated partly by America's imposition of sanctions over Mr Erdoğan's refusal to release a pastor, Andrew Brunson, who is absurdly accused of terrorism. President Donald Trump has made matters worse by vowing to slap higher tariffs on Turkish metals. The lira has lost a fifth of its value this month, further fuelling inflation, increasing the burden of foreign-currency debts and threatening the health of Turkey's banking system. Relations with America are poisonous. Mr Erdoğan blames Turkey's economic problems on a plot by foreign enemies and has imposed retaliatory tariffs on American cars, alcohol and even cosmetics.

The crisis poses three types of risks: for other emerging markets, nervous that investors will flee as contagion spreads; for Turkey's economy, which is staring at a deep recession; and for the West, whose fraying bonds to Turkey could finally break. On each count, how bad could things get?

When Erdoğan sneezes

Start with the least-bad news. The lira's collapse has caused wobbles in other emerging markets that may share one or more of Turkey's traits, including an inadequate savings rate, a big current-account deficit, lots of foreign-currency debt and high inflation. The South African rand swooned; the Indian rupee hit a record low this week; Argentina, which has already had its own currency crisis this year, raised interest rates again. Shares in banks with exposure to Turkish borrowers fell (see Finance section).

The environment for emerging markets has become less forgiving as the tightening of monetary policy in America has boosted the dollar and as concerns grow about China's economy. But a cascade of currency crises still seems unlikely, mainly because Turkey's frailties are so acute. Of the big emerging-market economies, only Argentina and Egypt (both now wards of the IMF) also have a double-digit inflation rate; none has a current-account deficit as big, although Pakistan's comes close. Other markets have more room for policy manoeuvre.

And the ones with problems that are most similar have shown more alacrity in tackling them. The fact that Argentina's central bank acted to raise interest rates is a source of comfort.

For Turkey itself, there is a fairly standard blueprint to follow when an economy gets into such straits: raise rates to reduce pressure on the currency and tackle inflation, and seek out emergency financing from the IMF, tied to a set of investor-friendly policies. Argentina did just that earlier this summer, helping to nip its crisis in the bud.

Turkey has so far done little more than fire-fight, offering some help to the banking system, making it harder to speculate against the lira and drumming up promises of investment from allies such as Qatar, which will provide dollars but not credibility. Mr Erdoğan's resistance to higher interest rates, and the fact that turning to the IMF would require some bowing and scraping to America, dent the chances that Turkey will get ahead of things. That could be the difference between a managed adjustment and a chaotic collapse, in which defaults spread and banks teeter.

He blames America

Mr Erdoğan may yet see sense. But his autocratic style fosters bad policies. He has undermined the institutions that ought to stand up to him. The central bank, which should be independent and technocratic, defers to a leader with crackpot views. The finance ministry is run by the president's son-in-law. The media, which should be pointing out Mr Erdoğan's mistakes, are so cowed that they repeat his conspiracy theories instead. Deprived of real news, many Turks believe their problems are caused by a Western plot. With no one to curb him, Mr Erdoğan is free to indulge his worst instincts.

In normal times, Turkey's Western allies might help by telling Mr Erdoğan to change course. But European governments are scared to upset him, lest he open the gates and let Syrian refugees flood into Europe. And Mr Trump is engaged in a ridiculous chest-thumping contest with the Turkish leader, with each man trading threats and stirring up patriotic anger against the other. Neither is willing to back down, for fear of looking weak.

In the short run Turks will suffer far more from the crisis. Many are already feeling poorer as prices soar. In the long run, however, America will suffer, too. Turkey is an important ally in a crucial place, straddling the crossroads between Europe, the Middle East and Asia. If it falls out too badly with the West, it may drift even closer to Russia or China. Mr Trump is right to press for the release of Mr Brunson, but wrong to use tariffs to that end. The rules-based trading system depends on countries not using such blunt weapons indiscriminately. And the NATO alliance is undermined when America's president needlessly inflames disputes with tetchy member states.

Mr Trump and Mr Erdoğan need to find a face-saving way for each to declare victory and dial down the aggression, as Mr Erdoğan has previously done with Russia and Mr Trump with North Korea. That would create room for the West, including the IMF, to help Turkey step back from the abyss. It will be hard to save a country whose leader does not understand why it is in trouble. But Turkey is too important to be abandoned. ■

Saudi Arabia

The prickly prince

Muhammad bin Salman's capriciousness is hurting his kingdom



ELON MUSK, a mercurial entrepreneur, wants to take Tesla, his electric-car firm, private. That will cost billions. Where will he find the money? On August 13th Mr Musk gave an answer: from Saudi Arabia, probably (see Schumpeter). It is a common refrain. When visionaries want someone rich to back something bold, they turn to Muhammad bin Salman, the crown prince who runs the oil-rich kingdom. He has committed \$45bn to a Japanese tech fund and plans to build an ultra-modern city on the Red Sea costing \$500bn. If Prince Muhammad wants to invest in electric cars too, why not take his cash?

One reason for caution is that what the prince gives, he can suddenly take away. This month, after Canada's foreign minister tweeted that Saudi Arabia should not lock up peaceful dissidents—hardly an unusual statement for a Canadian politician—Prince Muhammad was furious. Instead of ignoring the tweet, he retaliated wildly. Saudi Arabia expelled the Canadian ambassador, cut off bilateral trade, ordered Saudi students out of Canadian universities and told sick Saudis to shun Canadian clinics. State media lambasted Canada's human-rights record; social media portrayed Canada as a drug-addled dystopia. Mr Musk, who is half-Canadian, has been warned.

Prince Muhammad's fury will not hurt Canada much. Just 0.2% of its exports went to Saudi Arabia last year. The immediate pain will be felt by Saudi students who must suddenly find another college and Saudi patients who must take their ailments elsewhere. In the longer run, the main damage is to Saudi Arabia's reputation—and that has real consequences.

Investors like predictability. Prince Muhammad offers the opposite. Last year, without warning, Saudi Arabia led an economic blockade of Qatar that continues to disrupt trade in the

region. Months later, as part of an anti-corruption drive, hundreds of Saudi princes and tycoons were locked up in a luxury hotel in Riyadh until they surrendered a big chunk of their assets. No doubt some of them were guilty of something, but there was no due process. To outsiders, it looked as if property rights in Saudi Arabia depend on the prince's whim.

In many ways, Prince Muhammad is trying to change the kingdom for the better. He has loosened religious and social restrictions: Saudi women can now drive, and everyone can go to the cinema. He has pursued economic reforms aimed at eventually weaning the Saudi economy off oil, and encourages Saudi women to go out to work. All this has made him popular, especially among the young and among women.

A reformer, but reckless

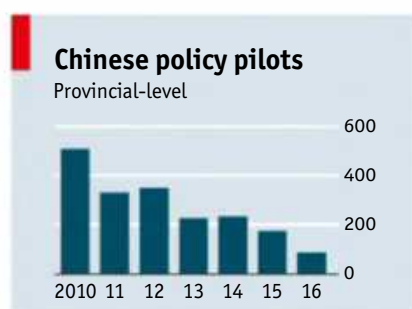
Yet by doing things that are wrong and foolish, he needlessly alienates potential supporters at home. Even as he lifted the ban on women drivers, for example, he was locking up women who had campaigned for it. He needlessly alienates foreigners, too. Last year the Saudi authorities detained Lebanon's prime minister for two weeks—an extraordinary breach of diplomatic norms. In Yemen, where Prince Muhammad is fighting a proxy war against Iran, Saudi bombs hit a school bus on August 9th, killing dozens of children. The war, now in its fourth year, has devastated Yemen and shamed allies such as America and Britain, which supply Saudi Arabia with arms.

Few Saudis are brave enough to tell Prince Muhammad when he is making mistakes. His allies ought to speak up, but they are silent too. This is a grave mistake. Saudi Arabia is the largest Arab economy and home to Islam's holiest sites. Successful reform there would help stabilise the whole Middle East. Foreign leaders should advise Prince Muhammad to calm down and stop damaging his country and his reputation. If he does not, they should stop selling him weapons. ■

China's reforms

Pilot error

China is conducting fewer local policy experiments under Xi Jinping. That is a shame




history. One of the secrets of Deng's success was his encouragement of experimentation (see China section). He did not dismantle Mao's disastrous "people's communes" in one go. He did so over several years, allowing different places to try different methods. He turned a blind eye when local authorities

COME December, it will be 40 years since the Communist Party endorsed Deng Xiaoping's proposal for reform. What followed was an economic transformation on a scale and at a pace that had never before been witnessed in human

allowed peasants to farm their own plots and sell their crops. When output soared, he made this official policy. In 1980, to the horror of Maoists, he set up "special economic zones" along the coast to carry out free-market trials. These too proved a success, and were eventually replicated nationwide.

Deng's pragmatism helped rescue China from the dogmatic ditch into which Mao had forced it. His successors, though spooked by the collapse of the Soviet Union, kept experimenting even in the political realm in the 1990s and early 2000s. People in some places were even given a bit more leeway to choose local leaders in grassroots elections.

The freedom to tinker has never been unlimited, and various autocratic habits have undermined some experiments. ►►



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► One is secrecy. State media are often ordered to keep quiet about pilot projects in case they go wrong. Results can often be published only in classified journals; leakers face years in jail. If China's experiments with a less draconian family-planning policy had been debated more openly after their launch in the 1980s, more heed might have been paid to their findings: that it was pointless (as well as cruel) to punish parents for having more than one child. Most wanted small families anyway.

Fear of trying

Nonetheless, as in any country, let alone one as vast and varied as China, a suck-it-and-see approach yields better results than deciding everything centrally. Alas, under President Xi Jinping, experimentation of any kind has become harder. In 2010—two years before Mr Xi took over—around 500 policy-related pilot projects were being carried out at the provincial level, reckons Sebastian Heilmann of the University of Trier in Germany. By 2016 the number had dropped to about 70.

One reason is fear. Since he came to power, Mr Xi has been waging a fierce campaign against corruption—sometimes justified, but brutal. Bureaucrats have become less willing to sug-

gest experiments because anyone adversely affected by them might retaliate by accusing the reformers of graft. The other reason is to do with Mr Xi himself. The man who would be president-for-life has shown little interest in letting his subordinates do their own thing. When China-watchers call him “chairman of everything”, they are only half-joking.

Rather than stifling experimentation, Mr Xi should unleash it. Several areas are crying out for fresh thinking. Many state-owned firms are woefully inefficient. Why not privatise some and see what happens? Chinese farmers lack clear title to their land. Perhaps some places could try giving them property rights? Rural migrants are treated as second-class citizens in big cities, deprived of public services. If their grievances are not dealt with, they could destabilise China. Why not ask some of these cities to try scrapping the pernicious household-registration system that is the root cause of the migrants' woes?

The worry is not just that fresh experiments with local democracy are all but unthinkable under Mr Xi. It is that countless good ideas of all kinds will never be tried, will never prove their worth and will never spread. Wise leaders recognise that they do not have all the answers. Does Mr Xi? ■

Infrastructure

The bridges of decay

It is not just in Italy that bridges are failing



CONCRETE can last a very long time. The roof of the Pantheon in Rome is the world's largest unreinforced concrete dome; it was completed in around 125AD by Hadrian, an emperor. But concrete structures can also fail, with tragic consequences.

Although it is too early to know the cause of its collapse, something clearly went very wrong with the Morandi bridge in Genoa, which was completed in 1967 and crashed to the ground on August 14th with the loss of at least 38 lives.

In Italy itself fingers are already being pointed: at the operator of the bridge, at the bridge's designer, at politicians at home and abroad (see Europe section). But the Genoa disaster also carries a warning that stretches well beyond the country's borders. Concrete, on which the Morandi bridge relied, has become the world's most widely used building material. The sort reinforced with steel is found in all manner of construction. And unlike the stuff in the dome of the Pantheon, reinforced concrete comes with a problem.

The reinforcing is done by encasing steel bars—or the ties that support bridges, as in the design of the Genoa structure—within the concrete. The difficulty with using metal is that it introduces a potential weakness. Tiny cracks can develop in concrete from battering by the weather, vibrations from traffic, movements in the foundations and other causes. These cracks allow water to creep inside the structure, and once in contact with the metal contained therein, cause it to corrode. That process can dramatically weaken the structure. Bridges are of particular concern because they can be subjected to unusually large stresses and strains, and many span long distances with nothing below them for support.

The risk of deterioration inherent in reinforced concrete can be accelerated by many factors. Shoddy workmanship in the first place does not help. In the case of bridges designed in the 1960s, the loads placed on them have become far higher because traffic volumes are greater, cars are bigger and lorries much heavier. Extreme weather can also play a part, not least because concrete expands when it gets hot and contracts in the cold. Floods are able to undermine foundations. In the normal course of things, most bridges built using reinforced concrete may survive individual events. But if they have been weakened and that vulnerability has not been detected by regular inspections and repaired, for whatever reason, a vital margin of safety has been removed.

Concreting the world

So it is not just in Italy that questions should be asked about monitoring and maintenance regimes. Bridges throughout Europe, America and Asia are all showing signs of deterioration. As long ago as 1999, one study showed that 30% of road bridges surveyed in Europe had some sort of defect, often involving corrosion of their reinforcement. And a report this year found that more than 54,000 out of the 613,000 bridges in America are rated “structurally deficient”. These dodgy bridges are crossed 174m times a day.

In many cases, structures that might have been expected to last a century or so will now probably have to be replaced in half the time because of various forms of structural deterioration. New technologies will help with much closer monitoring; new materials will allow stronger replacements (see Science section), which might turn out to be a cheaper option than restoration. With the world covered in reinforced concrete, this is a problem that spans countries. The failure of the Morandi bridge shows that it must not be ignored. ■

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China expands

As well as Eurasia and Africa, China's Belt and Road Initiative has also reached the shores of the Caribbean ("Gateway to the globe", July 28th). Often thought of as America's backyard, this region is increasingly becoming America's soft underbelly. Years of strategic neglect by Washington have provided Beijing with opportunities to build relations with many of its nations. China has built a host of new embassies across the region, one of the biggest of which is in tiny Dominica, a country with just 74,000 inhabitants. Caribbean governments have relatively few natural resources to offer, but they are happy recipients of roads, stadiums, schools, hospitals and yes, presidential palaces and parliaments.

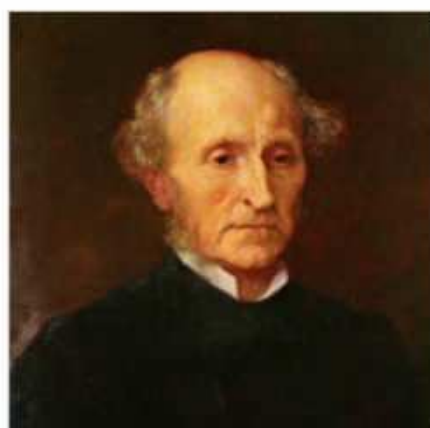
China's economic forays in the South Pacific have been shadowed by a creeping militarisation of that region. A similar development could happen in the Caribbean in the years to come. For now, it is too early to say whether China is strengthening its presence in the Caribbean as a tit-for-tat for America's naval patrols in the South China Sea. But should Beijing wish to up the ante at some point, Washington should wonder why it slept while China developed a critical strategic foothold right under its nose.

WILLEM OOSTERVELD
Strategic analyst
The Hague Centre for Strategic Studies

China has established its firm ownership of the South China Sea and is unlikely to cede any space. It will eventually get ASEAN to do its bidding and the disjointed approach to prevent that is not working. ASEAN's faultlines have been cruelly exposed. It is the Indian Ocean where China needs to be checked as it expands its footprint through naval bases as part of its overall strategy of global maritime dominance. The Indian navy can contain the present Chinese naval presence but would be hard pressed to do so if it continues

to grow at its present rate. The long-standing Sino-Indian border dispute, which China deliberately keeps alive with frequent provocation, also limits India's options. The "arc of maritime democracies" need to get their act together if the rules-based international order is to survive.

COMMODORE ANIL JAI SINGH (RETD)
Vice-president
Indian Maritime Foundation
Noida, India

What would Mill say?

It is a pleasure to read your series on liberal thought ("Against the tyranny of the majority", August 4th). But if John Stuart Mill would have viewed Donald Trump's presidency as the inevitable outcome of the clueless majority's choice, he would have been wrong. Hillary Clinton, not Mr Trump, won the popular vote by a majority of 3m. The electoral college elected President Trump. If anything, Mr Trump's presidency demonstrates the frustration, not the tyranny, of the majority.

SHARONA MUIR
Perrysburg, Ohio

In attributing blame for the wave of anti-liberal sentiment that followed the 2008 financial crisis ("The brains trust", August 4th) you pointed to the concentration of power among a ruling liberal elite, which bred intellectual arrogance: "the liberals in charge before the financial crisis were convinced that they had all the answers. In protecting what they had, they stopped thinking." Around that time, *The Economist* ran an advertising campaign featuring a quote from Larry Ellison: "I used to think. Now, I just read *The Economist*."

Perhaps some of the blame lies closer to home.

FERGUS GREEN
London

Paying for our sins

Your article questioning the efficiency of sin taxes, on products such as tobacco and sugary drinks, deviated from your previous strong support for the policy ("The taxes of sin", July 28th). It is almost unbelievable that *The Economist* aired the idea of saving money by letting smokers die ten years early. You failed to consider the evidence about the effect of tobacco taxes on society at large, and the poor in particular. The health benefits of tobacco taxes far exceed the increase in tax liability and they accrue disproportionately to lower-income households.

As shown by country-specific research from the World Bank Group, the poor tend to smoke more and are more price responsive on average than richer individuals, so they get a far greater share of health benefits from higher tobacco taxes than they pay. When they quit their families benefit from the reduction in passive smoking and the lower likelihood that they will fall into extreme poverty from catastrophic medical expenses and lost earnings because of tobacco-related premature ill health, disability or death. Countries can increase the progressivity of tobacco taxes by spending them on programmes to reduce poverty, as in fact most of them generally do. In the Philippines, for example, the additional tax revenue generated by the sin tax reform in 2012 has helped expand health insurance coverage for 15m low-income families.

You also underestimated the health and economic effects of the obesity epidemic, particularly the ominous global trends in child obesity caused by a poor-quality food environment of inexpensive sugary drinks, junk food and other highly processed foods replacing traditional diets. Since sugary drinks are in most cases the single largest contrib-

utor of added sugar to the diet it is right that soda taxes are part of anti-obesity strategies that reach the whole population at minimal cost.

PATRICIO MARQUEZ
Lead public health specialist
PAUL ISENMAN
Former principal economist
ALAN FUCHS
Senior poverty economist
SHEILA DUTTA
Senior health specialist
All at the World Bank Group
Washington, DC
ROBERT MARTEN
London School of Hygiene and Tropical Medicine

You reported that after Mexico imposed a tax on sugary drinks, sales fell by 5.5% in the first year and 9.7% in the second. Mexico's manufacturing-industry survey shows that sales per head fell by just 3.8%, and as a one-off effect that did not strengthen over time. Mexico's biennial household expenditure survey indicated a slight rebound in sales in the second post-tax survey.

Much recent evidence on these taxes comes from public-health researchers who ignore modelling issues that worry economists, such as the storability of drinks and quality downgrading as prices rise, which makes quantity responses smaller. Small sin taxes do not have the big effects claimed by some studies.

JOHN GIBSON
Professor of economics
University of Waikato
Hamilton, New Zealand

A Russian proverb

The piece of financial acumen quoted by Buttonwood (July 14th), "bears sound clever, bulls make money", reminds me of an old Russian saying: "If you are so smart, why are you so poor?"

DANIEL GUPTA
Moscow ■

Letters are welcome and should be addressed to the Editor at The Economist, The Adelphi Building, 1-11 John Adam Street, London WC2N 6HT
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The successful candidate will bring substantial experience in Middle & Back Office leadership and risk management. S/he will be highly analytical, strategic and delivery-oriented, with the ability to serve as an effective interlocutor with internal clients that include regional and sector departments, Legal, Audit and Risk, among others. S/he will bring seniority, energy, and vision.

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Division Manager, Strategy & Transaction Support (PINS1)



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The African Development Bank has retained Russell Reynolds Associates to assist with this appointment.

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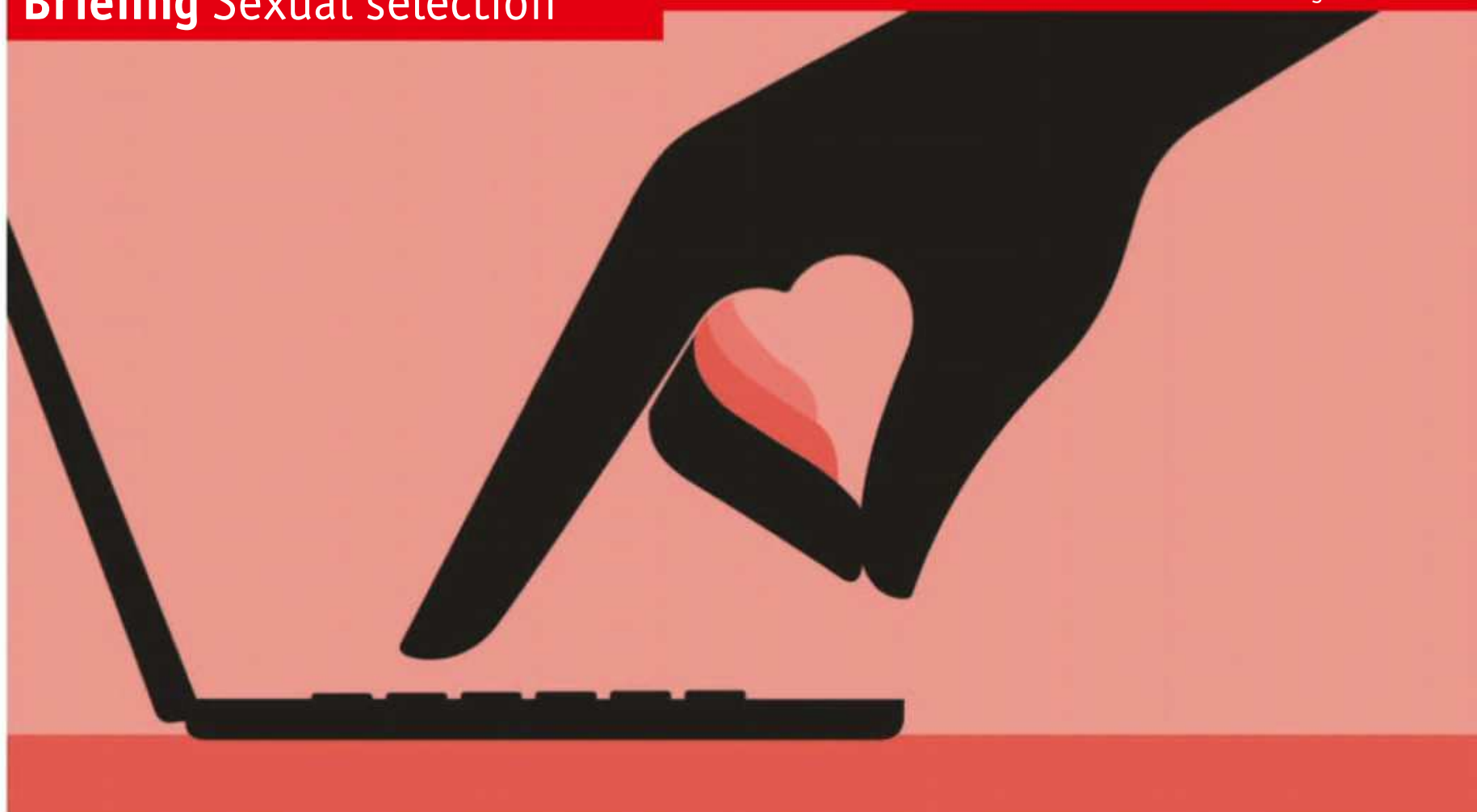
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Putting the data into dating

BEIJING, MALMO AND TINDER

Internet dating is adding to the sum of human happiness, though not without heartache. It could get better

ON JULY 19th 1695 an intriguing advertisement appeared in the *Collection for the Improvement of Husbandry and Trade*, a London periodical. The husbandry involved was, potentially, that of “A gentleman about 30 Years of Age, that says He has a Very Good Estate”; the trade was an offer to “Willingly match himself to some Good Young Gentlewoman, that has a fortune of £3,000 or thereabouts.”

The personal ad went on to become a staple of the newspaper business, and remained so for centuries. Now, like so much of the rest of that business, announcements of matrimonial and other availability have moved to the internet. The lonely hearts of the world have done very well out of the shift. Personal ads never accounted for more than 1% of marriages in America. Today dating sites and apps account for about a sixth of the first meetings that lead to marriage there; roughly the same number result from online encounters in venues not devoted to such matters.

As early as 2010 the internet had overtaken churches, neighbourhoods, classrooms and offices as a setting in which Americans might meet a partner of the opposite sex. Bars and restaurants have fallen since (see chart on next page). For those seeking same-sex partners the swing is even more striking. The internet is the

primary meeting space for same-sex pairings, whether casual or more than casual: 70% of same-sex relationships start online. “This is a very big shift in how people find their partners,” observes Reuben Thomas, a sociologist at the University of New Mexico. “It’s unprecedented.”

For most of human history, the choice of life partner was limited by class, location and parental dictat. In the 19th and 20th centuries those constraints were weakened, at least in the West. The bicycle increased young people’s choices immeasurably; so did city life. But freed from their villages, people faced new difficulties: how to work out who was interested, who was not and who might be, if only they knew you were.

In 1995, less than a year after Netscape launched the first widely used browser, a site called match.com was offering to help people answer those questions. As befits a technology developed in the San Francisco Bay area, online dating first took off among gay men and geeks, but it soon spread, proving particularly helpful for people needing a way back into the world of dating after the break-up of a long-term relationship. Couples who had met online became commonplace.

The 2010s have seen these services move from the laptop to the phones with

which young people have grown up. In 2013 Tinder, a startup, introduced the masterfully simple idea of showing people potential partners and having them simply swipe right for “yes” and left for “no”; when two people swiped right on each other’s pictures they were put into contact with each other. It proved a huge hit.

Such phone-based services are more immediate, more personal and more public than their keyboard-based predecessors. More immediate because instead of being used to plan future encounters, or to chat at a distance, they can be used on the fly to find someone right here, right now. More personal because the phone is intimate in a way the keyboard is not, camera-ready and always with you. More public for the same reason. Many people now feel quite happy swiping left or right on public transport, gossiping to their friends about potential matches. Screenshots of possible partners fly back and forth over WhatsApp and iMessage. Once confined to particular times and places, dating can extend everywhere and anywhere.

It’s just the power to charm

Not all countries and classes are adopting online dating at the same rate or in the same way. Americans are charging ahead; Germans, comparatively, lagging behind. India, which has long had a complex offline market for arranged marriages within religious and caste boundaries, has seen it move online. Last year saw a rare Indian tech-sector IPO when matrimony.com raised 500 crore rupees (\$70m) to help it target the marriage market.

In countries where marriage is still very much in the hands of parents, today’s apps ►

► offer an option which used hardly to exist: casual dating. Yu Wang, the chief executive of Tantan, founded in 2015 and now one of China's largest dating apps, says the country's offline dating culture is practically non-existent. "If you approach someone you don't know and start flirting, you're a scoundrel," he says. But on Tantan "you don't expose yourself, there's no danger of getting rejected, you cannot lose face." As of February, Tantan had 20m users and had created some 10m couples, Mr Wang says, adding: "That's a significant effect on society."

Unfortunately, the level of significance is hard to analyse or quantify. A great deal of the relevant data are treated as proprietary by the companies gathering them. The business is worth \$4.6bn globally, growing fast and highly competitive. Match Group, which operates Tinder, the original match.com and some 40 similar businesses, had revenues of \$1.3bn in 2017—a similar figure to the revenues of American condom sellers. Tinder has 3.8m paying subscribers; a number of its founders and early employees are suing Match on the basis that it had intentionally undervalued the company to avoid making big payouts.

Although Tinder has a clear lead, there are competitors in America, such as Bumble, set up by one of Tinder's founders after leaving the company, and around the world, all seeking to sell themselves on some refinement or other. Facebook is getting into the market, too. Users of many dating apps already link to their Facebook accounts to show who they are; a dating app that knew all that Facebook knows would have a powerful edge if it could use it well—and if users did not balk at the idea in a post-Cambridge Analytica world. None of the companies are interested in making it clear what secret data sauce—if any—they add to their wares.

Where data are available, mostly through national surveys, sociologists like Mr Thomas have found that online dating by and large leads to better matches—presumably because of the far greater choice of partners it offers.

The benefits are clearest for people whose preferences mean that discovering possible partners is particularly hard, either because of social isolation or physical isolation. Same-sex dating, which both operates in a smaller pool than heterosexual dating and is illegal or socially unacceptable in many places, is a particular beneficiary. Matching with same-sex partners over the internet is often far safer and more convenient than trying to do so in person.

The internet thus helps those with similar, and sometimes quite specialised, views on what makes for good sex, or indeed on more or less anything else. There are dating sites for various esoteric preferences, and sites on which one can find

more than one partner at a time. There are sites for women who want a man to father a child with them but not become a romantic partner. There are services for Jews, Christians, Muslims, Trump supporters, people who self-select as intelligent and vegans. There's BikerKiss ("Two wheels, two hearts, one road"), FarmersOnly ("Single in the country") and Ugly Bug Ball ("Dating for the aesthetically average").

How much happiness these particular possibilities for granularity have brought about is not known. But there are some figures for the field as a whole. In a 2013 study researchers from Harvard University and the University of Chicago showed that marriages that started online were less likely to end in break-up and were associated with higher levels of satisfaction than marriages of the same vintage between similar couples who had met offline: the difference was not huge, but it was statistically significant. Couples who met online also reported being slightly more satisfied with their marriage than those who met offline, by an average of one fifth of a point more on a seven-point scale. Scaled up to the third or more of marriages in America that start online, that would mean that close to a million people have found happier marriages than they would have otherwise thanks to the internet—as have millions more around the world.

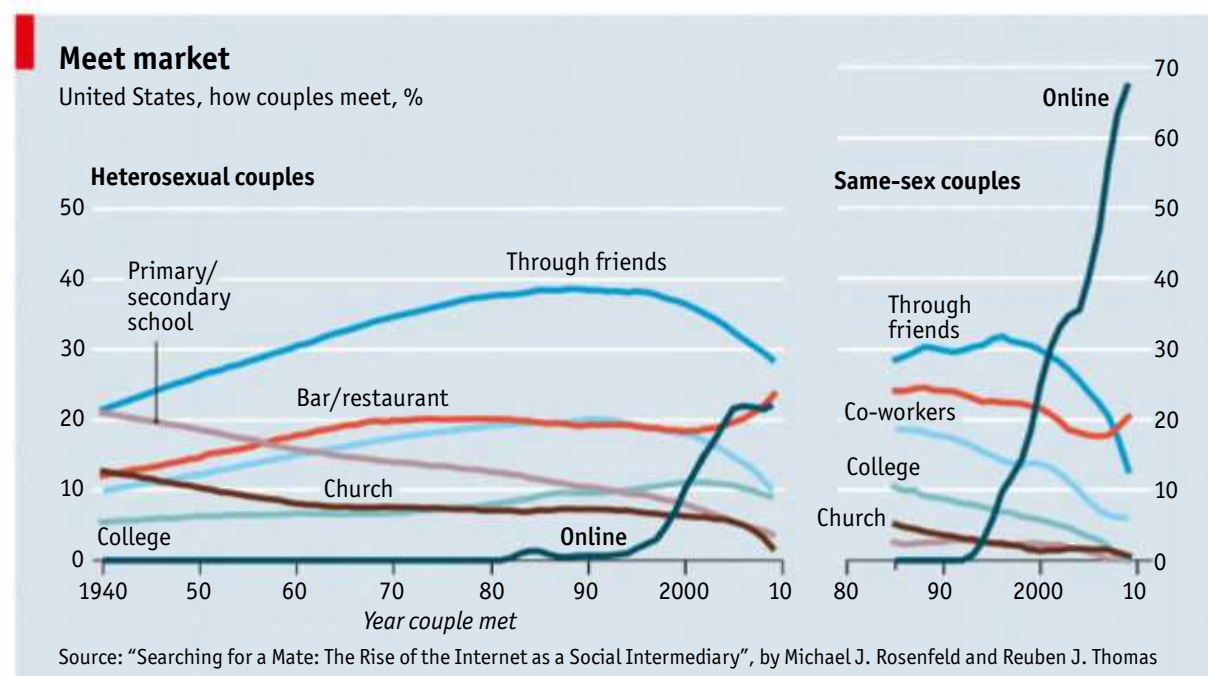
These findings chime with those from Mr Thomas and Michael Rosenfeld of Stanford University, who work with data from the How Couples Meet and Stay Together survey, conducted every few years by GfK, a research firm. Again, married people who met their partner online reported slightly higher relationship quality than those who met offline, and were less likely to have broken up after a year of marriage. Mr Rosenfeld has also shown that heterosexual relationships which start online and progress to marriage do so faster than those which reach that honourable estate from an offline beginning.

This makes sense. Offline, people meet

others who are like them in various ways—who know the same people and work in the same places. Online they can meet people not like them in those ways, but like them in other ways that may matter more. You can meet people who aren't like you and select those who are, says Jess Caribino, the in-house sociologist at Bumble.

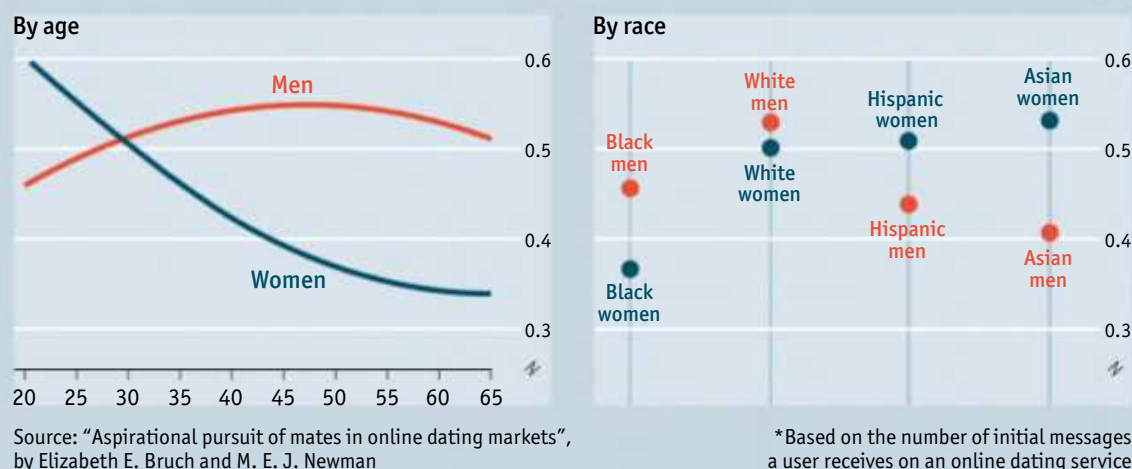
One aspect of their lives where people like to be in sync with those they meet online is in religious beliefs. Education levels and age also play a strong role—but an asymmetric one. Research by Elizabeth Bruch and Mark Newman of the University of Michigan, published in *Science Advances* on August 8th, used messaging data from one of the large dating apps (they were not allowed to say which) to rank daters according to other users' tendency to message them. The analysis shows that female desirability starts high at 18, then drops sharply with age. Male desirability starts low, rises until about 50, then tails off gently (see chart on next page). A postgraduate education makes men more desirable, while reducing desirability for women. These generalities are predictable and somewhat depressing. That said, they are trends, and specific results are what matter to users. The idea is not to appeal to the most people, but to be found by the right person.

One effect where internet dating seems to be mixing things up a bit is race. Josue Ortega, a sociologist at the University of Essex, argues that by opening up a racially mixed pool of partners in places where social groups tend to be more homogenous, the internet will increase the number of mixed-race couples. Using a computer model based on real-world data about racial preferences, he has shown that in a world where people are highly connected with others of their own race, but only poorly so with people from other races, even random links to perfect strangers will quickly increase the percentage of interracial marriages. Mr Thomas's work has led him to a similar conclusion. "People are ►►



Not so progressive

Desirability ranking*, average across four American cities, 2014, 1=most desirable



▶ suddenly meeting in this new bar, the internet, where anyone can get in...and there's a lot more diversity in it."

That said, not everyone in the bar is treated as equal. Internet dating makes various ways in which race and gender interact quite clear. The research by Ms Bruch and Mr Newman shows that users of all races find Asian women more desirable than Asian men, sometimes much more so; black men were responded to more than black women.

I never wave bye bye

Many users, while welcoming the broadening of choice that the online world offers, are also becoming aware of its downsides. For those who find popularity on the apps, endless choice can become something of a burden. Blessing Mark, a 24-year-old massage therapist from Lagos, Nigeria, uses Tinder for two purposes. She finds clients (rather as your correspondent found people through Tinder in researching this piece) and she seeks out romantic partners. For marketing her business, she says, Tinder is essential, but her love life on the app has turned sour. "I feel like I'm no longer the person I used to be," she says. "I go for dinner and I fuck and that's it."

Others talk of the exhaustion of trawling through endless matches, going on disappointing dates with some of them, then having to drag themselves back onto the net when it goes nowhere. There is a loneliness, too. The internet uncouples dating from other social activities which might comfort a shy or spurned heart in the offline world; love's vicissitudes can be harder when taken away from the context of a club or church hall.

It is tempting to hope that people made unhappy by online dating will stop. But people do things that make them unhappy all the time, and businesses often profit from their sadness. Dating apps want existing users to keep using them, maybe even to start paying for new features. Desperation is not necessarily their enemy; the achievement of domestic bliss is certainly not their friend.

Nevertheless, new services do seem to be looking at ways to make their users happier. Hinge, a popular app bought by Match in June, asks users to answer three short questions as part of setting up a profile, providing fodder to get conversation going—Tinder, but with full sentences. Luna is attempting to build a reputation market. Good dating etiquette—sending messages to people when warranted, responding to them, behaving nicely if a date ensues—will be rewarded with an in-app currency called Stars. These can then be spent to send messages to popular users, or exchanged for cash, or donated to a charity. The founders hope this focus on experience will keep their business goals and their users' personal goals well aligned.

There are other problems, too. The one that worries Tantan's boss, Mr Wang, is that 5% of his customers will never get a match, no matter how much they swipe.

Men on Tantan, he says, tend to like about 60% of all the female profiles they see, but women like just 6% of the male ones. The least attractive women receive similar levels of attention to the most at-

tractive men, says Mr Wang; all can find someone reasonably attractive. Men at the bottom of the ladder end up completely matchless. This fits with the work by Ms Bruch and Mr Newman. In general, both men and women concentrate on people that the common opinion of the site rates as 25% more attractive than they are. Even for women not seen as desirable, that can work. For the least desirable men, nothing works. "I don't expect that final 5% to be that easy to help," says Mr Wang.

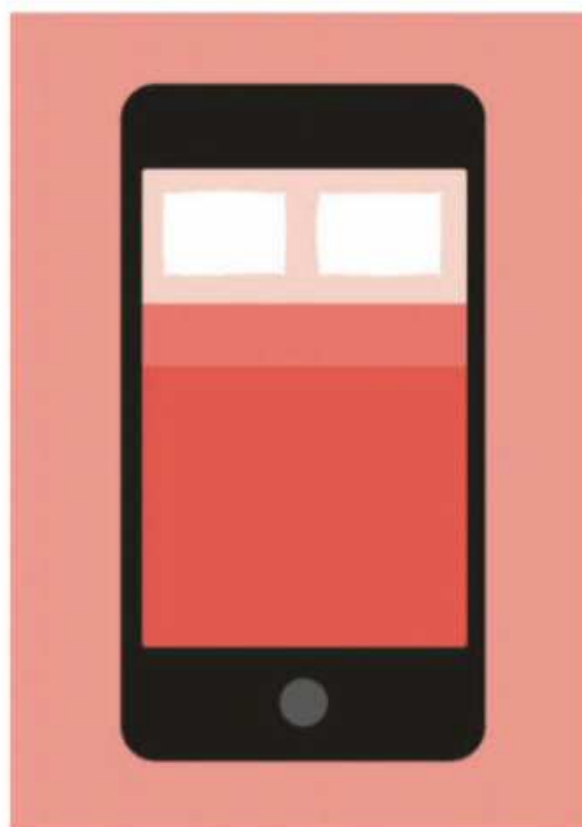
But he is going to try. Tantan is using the data it has on its users—their photos, the text of their profiles and their biographical details—as well as their every swipe, like and text message to train an algorithm which will act as a more active matchmaker, one that connects not just people who fancy each other, but people it thinks will have good conversations.

There is a scene in "A Beautiful Mind", a film about John Nash, in which he advises a group of fellow mathematicians on how they can all leave the bar with a girl: the key is for each to go for one or other of the less pretty girls in the group they are eyeing up, rather than all horning in on the prettiest; if they all go for her, then their attentions will cancel each other out, and her friends, piqued at being second choices, will reject them too. This scene greatly irritates people who know what a "Nash equilibrium" is in game theory, because its scenario isn't one. Nevertheless, it inspired Mr Wang. He aims to use data from the whole market to suggest good partners for each person.

If this works, Tantan will reap the rewards. Although network effects give an advantage to a dating app with more users—something which makes current apps worried about Facebook's intentions—it is not an overwhelming one. Many people use more than one app. If they look at the same group of people through different apps and find that one consistently provides matches they like more, they may stop subscribing to the ones that work less well, and they may tell their friends. Better products can thus hope to be rewarded.

Reducing romance to number crunching may sound crass. It will doubtless have its limits. But many phenomena that appear complex from a human perspective often turn out to be simple seen through disinterested data. The trick is finding the data that do it best, which is perhaps the most interesting area for dating apps to compete in: is it heartbeat on first meeting, measured through a smartwatch? Time spent on first dates? Netflix queues? Subway stops missed on the way home?

Whatever the telltale data turn out to be, the experience of love will continue to be ineffable, and its pursuit strewn with hardships. But making the path that bit easier to navigate seems likely to make many lives better, and many people happier. That is no mean thing. ■



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Summer of scandal

Pythons and ostriches

WASHINGTON, DC

The number of money scandals in Trumpland is overwhelming. Will voters care?

AS A candidate, Donald Trump promised to “drain the swamp” and make government work for ordinary Americans. As a president, he presides over a staggeringly fetid administration. His former campaign chairman, Paul Manafort, even wears clothes made from swamp creatures. Among the luxury goods on display during his trial on 32 counts of financial fraud and money-laundering was a python coat for which he paid \$18,500, nearly twice what he paid for an ostrich waistcoat, but a mere fraction of what he spent on clothes, rugs, and garden landscaping—all funded by lobbying for foreign governments.

The prosecution alleged that Mr Manafort lowballed his income by \$16.5m so as to pay less tax, and fraudulently obtained \$20m worth of bank loans (none of Mr Manafort’s 31 foreign bank accounts were apparently willing or able to supply the necessarily credit). The government’s lawyers also provided evidence that Mr Manafort dangled a job in the White House in front of a banker from whom he hoped to borrow. In response, Mr Manafort’s lawyers sought to remind jurors that he was a Republican, perhaps hoping that tribal loyalty would sway some of them to agree with the president that government prosecutors were engaged in a “total witch hunt”.

Mr Manafort’s case is the most outlan-

dish, but it is no outlier in Trumpland. The president’s former fixer, Michael Cohen, is under investigation for fraud. Neither man served in the White House, but plenty of other people followed around by money scandals have. Two cabinet officials—Scott Pruitt and Tom Price—have been forced out amid ethics scandals (Mr Price spent over \$1m of taxpayer money on private and military flights; Mr Pruitt’s alleged violations were too numerous to list). Other administration officials have similar concerns nipping at their heels. Democrats hope to convince voters that congressional Republicans bear some responsibility—and should pay the price in November—for the administration’s ethics deficit. That may prove harder than they would like.

Called to ordure

If so, it will not be for a lack of targets. On August 13th, the Campaign Legal Centre (CLC), a non-partisan ethical watchdog, filed an extensive complaint against Wilbur Ross, the commerce secretary, urging the Commerce Department’s inspector general to investigate him. The complaint alleges that Mr Ross helped make policy decisions that could have affected stock and other interests that he did not fully disclose that he owned. Mr Ross, via his personal lawyer, denied wrongdoing.

The Office of Government Ethics, an independent agency, has already accused Mr Ross of contravening his ethics agreement by taking short positions on holdings he promised to divest, and of “omissions and inaccurate statements”. John Thune, a Republican senator from South Dakota, joined Democrats in urging an investigation of Mr Ross’s finances. In July Mr Ross admitted to “inadvertent errors in completing the divestitures required by my ethics agreement”, and promised to sell his equities and put the proceeds into Treasury bonds. Mr Ross has previously faced allegations of concealing an investment in a Russian shipping firm with ties to Vladimir Putin’s son-in-law. *Forbes*, which is to billionaires as *Sports Illustrated* is to swimsuits, has accused Mr Ross of inflating his wealth and reports that “many of those who worked directly with him claim that Ross wrongly siphoned or outright stole a few million here and a few million there”, an accusation Mr Ross also denies.

Five days before the CLC filed its complaint against Mr Ross, Chris Collins, a congressman from upstate New York and the first sitting member of Congress to back Mr Trump in 2016, was arrested. Federal prosecutors allege that he tipped off his son that a biotech firm, on whose board he served and in which he was one of the largest shareholders, had a disappointing drug trial. His son, who was also charged, allegedly sold his shares and then tipped off four other people. Both Mr Collinses plead not guilty to the charges. Mr Collins has suspended his re-election campaign and is trying to remove his name from the ballot.

Many smaller scandals that would ordinarily draw more attention have become so much background noise. Earlier this

► year Brenda Fitzgerald resigned from running the Centres for Disease Control, America's federal public-health agency, after she was discovered trading tobacco stocks. Ben Carson, the secretary of housing and urban development, spent \$31,000 of taxpayers' money on a dining-room set for his office. He accepted responsibility, but also explained: "I left it to my wife, you know, help choose something...I dismissed myself from this issue."

Ryan Zinke, the interior secretary, has charged taxpayers for his private-jet travel, and failed to disclose that he owned shares in a gun firm in Montana and then met executives and lobbyists from that firm. A spokesman said that the value of shares was below the threshold required for disclosure, and that anyway the meeting was a social call. The desire to avoid other passengers while flying has been a recurring theme: last year Steve Mnuchin, the treasury secretary, took eight trips by military aircraft, costing taxpayers almost \$1m.

And then there are all the Trump family hangers-on who have found jobs in the federal bureaucracy. Eric Trump's former wedding planner runs the New York branch of the federal Department of Housing and Urban Development. On August 7th ProPublica, an investigative-journalism non-profit, reported that three members of Mar-a-Lago, the president's swish country club in Palm Beach, exercise undue influence within the Department of Veterans Affairs—despite the fact that none of them has ever served in the government or the armed forces.

All this is before taking into consideration any conflicts of interest on the part of Mr Trump himself. Democrats have dusted off the phrase "culture of corruption", which they used to great effect in the 2006 mid-terms. Then, George W. Bush's administration was tottering after it turned out that the federal government's response to Hurricane Katrina was being led by an Arabian-horse enthusiast appointed by Mr Bush. The 2006 election also coincided with a money scandal involving Jack Abramoff, a Republican lobbyist, which has many echoes of Mr Manafort's escapades. Democrats hope to connect the current administration's ethical woes to a broader tale of Republicans blithely backstroking around the swamp that Mr Trump was supposed to drain.

Yet it is unlikely that voters in, say, Arkansas will care enough about the ethical failings of a congressman from upstate New York whom they have never heard of, or of the cabinet secretary of a department with obscure responsibilities, to vote against a Republican candidate whom otherwise they would have supported. Asked whether the Trump administration's scandals have come up in North Dakota's hotly contested Senate race, Jim Fuglie, a former state Democratic Party official-turned-pun-

dit, says that voters are more worried about tariffs. North Dakota's Senate race, he argues, "turns on the price of soybeans ...If it's \$6, [Heidi] Heitkamp [the Democratic incumbent] wins." Laura Belin, author of "Bleeding Heartland", a blog about Iowa politics, says she doesn't think "the public at large is really tuned into" the administration's ethics scandals. Those are mainly fodder for "the activist class".

Mr Trump's administration may be so scandal-ridden that each ethical peccadillo just seems like more of the same. Stephen Bannon, his ousted adviser, famously said that the way to win is to "flood the zone with shit", thereby overwhelming anyone's ability to focus on one thing for more than a single news cycle. "Maybe we're just like the rest of the country," says Mr Fuglie. "We're shaking our heads, and saying, 'Oh, jeez—there he goes again.'"

West Virginia politics

My kingdom for a couch

The Mountain State impeaches its entire Supreme Court

NEVER underestimate a successful man's propensity to waste money on hideous personal items. Justin Bieber, a Canadian troubadour, reportedly spent \$15,000 on jewelled tooth covers. Allen Loughry, West Virginia's chief justice, spent \$32,000—slightly less than the average income per person in his state—on a blue sectional sofa (pictured below) that looks like something one might find, stained with beer and other fluids, in a fraternity house.

The sofa accounted for less than one-

tenth of Mr Loughry's overall spending on office renovations, and far less than the \$500,000—including two rugs costing \$28,194—that his fellow justice Robin Davis spent redoing her office. Unfortunately, they may never get to use their new digs. On August 13th the lower chamber of West Virginia's statehouse impeached all four sitting Supreme Court justices, charging them with overspending on office renovations and failing to implement policies to govern the personal use of state property (in a delightful turn, Mr Loughry has been accused of using state vehicles four times to drive himself to events where he hawked his book, subtitled "The Sordid and Continuing History of Political Corruption in West Virginia").

Three justices were also accused of overpaying senior-status judges. A fifth justice, Menis Ketchum, resigned in July, shortly before pleading guilty to a charge of wire fraud relating to his use of a state vehicle and fuel card for golf outings. And in addition to impeachment, Mr Loughry also faces 23 federal counts of fraud, witness tampering and lying to investigators.

Their spending on renovations was not illegal: West Virginia's Supreme Court has complete authority over its own budget, though a constitutional amendment giving the legislature partial oversight is on the ballot this fall. But, especially in one of the poorest states in the union, it was unseemly, and impeachment is a political process rather than a legal remedy.

Some see an unduly political process, less a blow for justice and frugality than a power grab by Jim Justice, the state's Republican governor. Voting for the articles broke along mostly party lines, with Republicans for and Democrats against. Mr Justice shares some of the president's characteristics: he owns a famous golf course, the Greenbrier, and switched his affiliation ►►



Sofa, not so good

▶ from Democrat to Republican. He is also the state's richest man thanks to a fortune built on coal mining, a line of business that could be affected by future court rulings.

State law allows Mr Justice to appoint a replacement for any justice with at least two years left in their 12-year term that leaves the court within 84 days of a general election, which happened to be August 14th. Ms Davis resigned on August 13th, so voters will choose her replacement. Evan Jenkins, currently a Republican congressman, announced his candidacy on August 14th. So did William Thompson, a circuit judge from Boone County, in the troubled southern part of the state, who wants to "create family drug courts, which will protect children in West Virginia who are neglected and abused because their parents suffer from drug addiction."

Now the matter proceeds to the state Senate. Removing the justices requires a two-thirds vote in the chamber; Republicans currently hold 22 of 34 seats. If the three are removed, Mr Justice can reshape the court as he sees fit, at least for the next two years. Voters will not get to weigh in until the next election, in 2020. ■

The death penalty

Cornhusker dues

CHICAGO

Nebraska's first execution for 20 years

THE first of the four drugs was administered on August 14th at 10.24am at the state penitentiary in Lincoln. Fifteen minutes later a curtain was lowered, and by 10.47 Carey Dean Moore, aged 60, who had been incarcerated for 38 years for murdering two taxi drivers, was pronounced dead. It was the first time in 21 years that Nebraska had executed a prisoner. And it was the first time ever that fentanyl, a powerful synthetic opioid, had been used for an execution.

After declining for years, public support for the death penalty is on the rise; 54% of those surveyed are in favour, compared with 49% two years ago, according to a recent poll by the Pew Research Centre. Death sentences are also a little more frequent than in the recent past, says Robert Dunham of the Death Penalty Information Centre. That may be related to the political rhetoric in Washington. President Donald Trump has proposed executing drug dealers to curb the opioid epidemic.

Nebraska is a deeply conservative state and its Republican governor, Pete Ricketts, is a fervent supporter of capital punishment (not least, some say, because he was so shocked by the gruesome murder of one

The White House

Oh me, oh my

Another insider account of how the country is run

ONE by-product of the Trump administration's extraordinarily high turnover is likely to be a large number of tell-all books from former staffers. The 45th president has only been in office for a year and a half and yet there are already three such books—by Sean Spicer, James Comey and, now, by Omarosa Manigault Newman. The author, who was offered a White House job largely on the strength of her performance in Season 1 of "The Apprentice", is an authentically Trumpian creature who has known the president for 15 years. This lends her a peculiar kind of expertise. She also taped her firing—by the chief-of-staff, John Kelly, in the White House Situation Room—which was bold.

As befits someone who came to the job through reality tv, in Ms Manigault Newman's corner of the White House there is no policy, only presentation. The author spends much of her time trying to arrange snaps of people who really do not wish to be photographed with the president. She seems baffled that Trump-world (her term) does so many things she disapproves of, then pushes back against her colleagues with another photo-op.

Much of the book involves settling scores with Kellyanne Conway, an adviser to Mr Trump. If you wish to know whom Ms Manigault Newman sat next to at lunch or on the plane then this is the work for you. The modesty usually expected in an autobiography often proves elusive. "If news got out that I thought the president was delusional or mentally impaired, the impact on national and global stability could be cataclysmic," she writes. As *The Economist* went to press, the cataclysm had yet to arrive.

Fortunately there are some funny bits to leaven the prose. Ms Manigault Newman asserts that the president has two beds in his bedroom, one for tanning and one for sleeping. She says that he eats sensitive documents and estimates that he has drunk 43,800 cans of Diet Coke in the time she has known him. Mr Trump's

hand gestures have been remarked on before, but here the author attempts to classify them (the cobra pointed finger; the starfish finger flail).

How much of this is actually true? White House sources have denied the most salacious bits, but then they would deny that the sun rises in the east. "The directive came down from Reince [Priest, then chief of staff] that our default position was to back up whatever the president said or tweeted, regardless of its accuracy," she writes. And Ms Manigault Newman may have more tapes.

Amid the craziness, there are moments of insight. "Trump's greatest character flaw", she writes of a man whom she considered a mentor and friend for a third of her lifetime, "is his total lack of empathy, which is itself a function of his extreme narcissism." "If you leave or betray the Trump cult," she notes, "you are labelled crazy and pathetic." That part is certainly true. Since publication, the president has provided his own blurb for the second edition. "When you give a crazed, crying lowlife a break, and give her a job at the White House, I guess it just didn't work out. Good work by General Kelly for quickly firing that dog!"



Eight Cokes and a frown

of his cousins). Yet the state has been unsure about the sentence for years. In 2015 a bipartisan group of lawmakers overrode the governor's veto of their vote to abolish the death penalty. The next year Mr Ricketts used his family fortune to bankroll a referendum on its reintroduction; voters endorsed the measure overwhelmingly. But in the weeks before Mr Moore's execution, Nebraska's Catholic bishops again ap-

pealed to the governor, a practising Catholic. They asked him to consider the doctrinal change announced by Pope Francis in early August, whereby the Catholic church now holds that capital punishment is always wrong.

The bishops' appeals fell on deaf ears. Mr Ricketts considers the death penalty to be an important tool for public safety and the only appropriate punishment for the ▶▶



Fentanyl furniture

► most heinous crimes. Yet there is scant evidence to suggest that deterrence works. The murder rate in New York, New Mexico and Connecticut continued to go down after those states abolished the death penalty. Southern states execute more people than any other region of the country, yet the murder rate in the South is the highest. The death penalty is also much more expensive than imprisonment for life, because of costly trials and lengthy appeals. Ernest Goss of Creighton University estimates that each death-penalty prosecution costs Nebraska's taxpayers about \$1.5m more than life without parole. Ten people remain on the state's death row.

Since the death penalty returned to America in 1976, 162 death sentences have been reversed and 1,480 people have been executed, so roughly one in ten was found innocent. Mr Dunham believes that, of those who were executed, at least a dozen were innocent. He cites the case of Carlos DeLuna, who was executed for murder in Texas in 1989 and who is now generally believed to have been convicted in error.

Nonetheless, it may get technically harder for Nebraska to carry out executions. After giving Mr Moore Valium to sedate him and fentanyl to render him unconscious, the executioner administered cisatracurium besylate to paralyse his muscles and potassium chloride to stop his heart. If the first two drugs did not work well, says Eric Berger of the Nebraska College of Law, then Mr Moore would have been in excruciating pain, much like being burned alive from inside. According to eye witnesses, he turned red and purple before the curtain was lowered. If an autopsy reveals that he suffered extreme pain, Nebraska will find it even harder to buy drugs from pharmaceutical firms fearful of the public outcry over their use. ■

Clerical sex abuse

Cardinal sins

A horrific past that refuses to go away

CATHOLIC America was already in shock, and then another hammer-blow fell. Two weeks after one of the country's best-known prelates handed in his cardinal's hat, amid allegations of molesting young men, a report has documented in sickening detail the sexual crimes that were perpetrated by over 300 priests in Pennsylvania over 70 years.

More than 1,000 children, and probably several times that number, were victims of clerical abuse that was systematically swept under the carpet, according to a judicial document of nearly 900 pages which was published on August 14th, as Catholics prepared for one of their cherished annual feasts, the Assumption of the Virgin.

The report was written by a grand jury that took around two years to investigate six of the eight dioceses in the state. They heard from dozens of witnesses and used their power to gain access to 500,000 pages of church documents.

The American Catholic church has struggled to cope with historical sex-abuse allegations since they exploded in the archdiocese of Boston two decades ago, and it has paid billions of dollars to victims. But the grand jury's investigation, focusing on a state long seen as a heartland of blue-collar Catholicism, was the broadest fact-finding exercise to date.

The jurors' grim findings follow a decision by Pope Francis to accept the resignation from the status of cardinal, pending a church trial, of Theodore McCarrick, an American cleric who is now 88. As Washington DC's archbishop, he is remembered as a familiar, affable figure in the corridors

of power. Not since the 1920s has a cardinal been stripped of his rank.

The Pennsylvania report struck an emotional note for a legal document. The jurors began with the words: "We...need you to hear this...There have been other reports about child sex abuse within the Catholic church. But never on this scale...Now we know the truth: it happened everywhere."

The jurors gave many grisly examples. One priest in the diocese of Erie, in north-west Pennsylvania, had confessed to the rape of at least 15 boys, some as young as seven, only to be hailed by his bishop as a "person of candour and sincerity" who deserved praise "for the progress he had made" in controlling his "addiction".

The jurors agree that much has changed in the past 15 years, and that the church seems far quicker to report abuse to the police. They hailed as "forthright and heartfelt" the testimony they had received, in person, from the current bishop of Erie.

Still, they found it regrettable that thanks to cynical cover-ups and a statute of limitations, it had been left too late to prosecute in the vast majority of cases. They urged Pennsylvania's lawmakers to remove time limits for criminal cases of this sort. A recent change has made it possible for victims to come forward up to the age of 50, but that still seems too restrictive.

In their response to the report, bishops mixed deep regret for past wrongs with an insistence that things had improved, especially since 2002 when new guidelines for dealing with sex offenders were adopted. Cardinal McCarrick helped shape that new approach, but fell foul of it himself. ■



Unholy shroud

Lexington | Indiana country

Moderate Democrats like Joe Donnelly are a throwback to a politics of pleasing voters



JOE DONNELLY is almost indistinguishable from the voters he is mingling with in Doug Burnworth's barn. A burly figure, in denim jeans and a yellow shirt bearing the legend "Indiana Pork", the Democratic senator from Indiana looks like a prosperous farmer. He also knows his onions—or rather, his corn and soybeans, the main crops in Noble County, northern Indiana.

For the crowd of farmers gathered to hear him, Mr Donnelly has news on the provisions for water management and crop insurance in the forthcoming Senate agriculture bill, which he helped write. He commiserates over the effects of President Donald Trump's budding trade war, including a 20% hit to soybean prices. But he does not blame Mr Trump, for whom most of the farmers—and over 70% of folk in Noble County—voted. His attitude towards the president is one of amiable concern, which he expresses while recounting their slightest interaction in minute detail. ("He said, 'Hey Joe, can you come over?'" "I said, sure!") Not once do the words "Democrats" or "Republicans" pass his lips.

It is a performance redolent of a former time in American politics, when partisan divisions were subservient to local leaders and issues. It is wholly at odds with talk of a progressive wave and a national verdict on Mr Trump in the mid-terms, which Mr Donnelly is campaigning for. Yet if the Democrats take either congressional chamber, especially the Senate, it will be thanks to gritty heartland moderates like him, battling for re-election in states such as Missouri, Montana, North Dakota and West Virginia, as well as Indiana. These are places where Mr Trump won big and is still popular; and where voters are liable to consider social democracy as something America defeated in the cold war.

That means Democrats like Mr Donnelly need to steer clear of the divisive national issues—including Mr Trump himself—their left-wing colleagues obsess over. A mastery of retail politics and local issues is their principal means. Paradoxically, this ensures their races are at once the most nationally significant and the most grounded in local politics. "Anyone need a passport or something, let us know," says Mr Donnelly, before engaging a group of farmers' wives on the quandary of freezing v canning.

Alongside Heidi Heitkamp of North Dakota, he is probably the most endangered Democrat up for re-election. Indiana, which Mr Trump won by 19 points, is the most conservative state

in the Midwest. It has backed the Republican presidential candidate in every election since 1964 bar one, when it voted for Barack Obama in 2008. As a big steel producer, it also has a lot of people who like Mr Trump's tariffs. Its logistics and manufacturing industries, situated at the crossroads of America, are booming. Mr Donnelly's Republican challenger, Mike Braun, the boss of a car-parts firm and a former member of the statehouse, naturally claims that the senator is an enemy of this progress. He cites his opposition to last year's plutocratic tax cut.

Yet Mr Donnelly, who votes with Mr Trump more often than not, is no out-of-touch liberal. He is rated one of the most socially conservative Democratic senators, rarely speaks to the national media, and focuses on issues, such as veterans' affairs, that Trump voters like. "The natural Trump coalition—farmers, firemen, policemen, veterans, small businessmen—has always been my coalition," he says. "They voted for me before and I'm very hopeful they'll do it again." Polls say the race is too close to call.

That Mr Donnelly is even competitive is remarkable. It also illustrates why the ideological purity demanded by some progressive Democrats is insane. Democrats cannot win legislative power without winning in some conservative states. And to do so they need, more than populist or ingenious economic policies, candidates that conservatives voters can trust. Mr Donnelly, a rare anti-abortion Democrat, gets a hearing from Hoosiers because he is on their cultural wavelength. The fact that Joe Biden, another hardscrabble moderate, is the only member of Mr Donnelly's party that he has allowed to campaign with him suggests how few Democrats cross that bar. "I've always kind of ridden around in my own truck," the senator says delicately.

Yet moderates like Mr Donnelly are more than an awkward necessity to their party. Having to overcome their constituents' partisan bias means they understand and represent them to a rare degree. That is a lesson for complacent partisans of all stripes. It is no coincidence contempt for politicians and the prevalence of uncompetitive congressional races are rising in tandem.

The ideological diversity conservative Democrats bring to their party is also good in itself. Mitigating groupthink helps produce better policy. On financial regulation, health-care policy and the like, moderates have consistently offered pragmatism and a check on the righteousness of their progressive colleagues.

Ideological conformity, and the damage it does, is even more apparent among Republicans, whose moderate wing is even more diminished. For all their strengths, Mr Donnelly and his counterpart in Missouri, Claire McCaskill, probably owe their jobs to it. Her Republican rival in 2012 imploded by arguing, to explain his opposition to abortion, that women who had suffered a "legitimate rape" rarely conceived. Mr Donnelly's opponent argued that conceptions following rape were "something that God intended to happen".

Reaping what you sow

In the current contest, Mr Trump's tariffs could be another act of Republican self-sabotage. Even the most Trump-loving farmers in Mr Burnworth's barn seemed mildly shocked by them. Others, noting the excellence of this year's soybean crop, were openly livid. The \$12bn in compensation Mr Trump has promised was additionally enraging, some said. It was disrespectful. "This guy is trying to treat American agriculture like Stormy Daniels," said Mel Egolf, who farms 1,900 acres and has voted Republican all his life. "He's saying take my money and keep quiet." ■

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TAPACHULA

After Donald Trump split up migrants' families, Central Americans are reconsidering their plans

ALBERTO opens his wallet to show how little is in it. It contains no money and no bank card, only the identity card issued by the government of El Salvador, from which he has just fled. He left his job as a car repairman in San Salvador, the capital, which paid \$100 a month, because members of the MS-13 gang had demanded from him more money than he could afford. "They killed my brother. And my son," he says. Alberto and his wife, Gabriela, who is four months pregnant, have found refuge, at least for now, in Tapachula, in the Mexican border state of Chiapas.

Central Americans sneak past Mexico's immigration controls an estimated half-million times a year, many in search of security or better wages. A few years ago Alberto and Gabriela might have headed to the United States, but they hope to stay in Mexico as refugees. Applying for asylum is not easy. A decision can take up to 100 working days. During that time, the family must visit a government office in Tapachula once a week. Although the couple are entitled to work in theory, in practice many migrants stay jobless while they await an answer. Alberto and Gabriela plan eventually to head north, to a Mexican state with better job prospects than Chiapas.

Why not move on to the United States? Because of President Donald Trump, Alberto says. He and his wife know that the American government has separated hun-

dreds of children from their parents at the border (though not that it suspended the policy after a public outcry). In June Jeff Sessions, the United States' attorney-general, said migrants could no longer claim asylum on the grounds of gang violence or domestic abuse. That is likely to reduce sharply approvals of asylum claims by Central Americans. News of that decision will eventually reach the refugees on Mexico's southern border.

Data on apprehensions of migrants by the United States suggest that Mr Trump's harsh rhetoric on immigration during his first year in office has so far been a bigger deterrent than the brutal policies of his second year (see chart on next page). Mr Trump has lamented that Central Americans were flowing "like water" into Mexico, which was doing "very little, if not nothing" to stop them. But the mood among the migrants in Tapachula suggests that at least some are reconsidering plans to enter the United States, if not to leave their home countries.

Less beastly

This is happening just as Andrés Manuel López Obrador, Mexico's left-wing president-elect, prepares to take office in December. He hopes to co-operate with Mr Trump on migration, but the American president looks like a reluctant partner. If the United States succeeds in hardening its

border, Mexico may struggle to cope with the flows across its southern one.

The United States has long pressed Mexico to strengthen that frontier. The "Southern Border Programme", funded partly with American money, does not so much put up barriers as round up people who have got through. Migrants in Tapachula say that crossing the border from Guatemala is easy. But from 2013 to 2015 the number of Central Americans deported from Mexico doubled to 180,000 a year. Checkpoints line the roads from Tapachula. The "Beast", a railway on which stowaways risk rape, robbery and murder as they head north, has become harder to board. Its speed has been increased and fences have been put up in railway yards.

At the same time, Mexico is letting more migrants stay. The number of asylum claims in Mexico has jumped from 1,300 in 2013 to 14,600 last year. Most applicants are Central Americans. The United States gets many more claimants: 108,000 Central Americans applied last year. But whereas the United States turns down three-quarters of claims from the countries of the "northern triangle" (El Salvador, Guatemala and Honduras), Mexico last year approved two-thirds of them. Awareness is spreading among migrants that asylum in Mexico is an option.

That does not mean they are welcome. New arrivals in Tapachula can get three nights' accommodation in church-run shelters, but then must move on to make room for others, perhaps to a patch of floor without a blanket. That costs 100-250 pesos (\$5-13) a night. The poorest sleep rough.

Relations with Mexicans in the area are rocky. Tapachula has the second-highest crime rate in Chiapas, even though there is hardly any organised crime in the city. Residents blame the migrants. Classrooms ►►

► overflow with migrant children. Few locals feel kinship with the Central Americans, despite ties of history and geography. In 1823 Chiapas voted in a referendum to join newly independent Mexico rather than the United Provinces of Central America, a short-lived federation of Guatemala and four other countries.

Most migrants are eager to move on, but are unsure where their journey will end. A programme run by the UN High Commissioner for Refugees (UNHCR) provides a humane model. It moves migrants from Tapachula, where jobs are scarce, to Saltillo, a town in Coahuila near the American border, which has a labour shortage. Working with factory owners, UNHCR gives the refugees a two-week integration course, then leaves them to their own devices. Five-sixths of them remain in Saltillo. The agency is setting up another unit in Guadalajara, and hopes to relocate up to 5,000 refugees next year. But the programme would have to be much bigger to resettle the bulk of refugees.

Mr López Obrador has given little sign of how he means to handle the influx. His election manifesto called for a stronger border, but also for protection of migrants' rights. The current government says it wants asylum-seekers to be able to work while it processes their claims, a measure that the president-elect favours. Alejandro Solalinde, who advises him on migration, told *El País*, a Spanish newspaper, that Mexico should convert its 50-odd detention centres, from which migrants are deported, into welcoming shelters.

Nor is it clear what will come of Mr López Obrador's discussions with Mr Trump. During the election campaign, Mr López Obrador said he would not do the United States' "dirty work" on Mexico's southern border, implying that he would just let migrants head to the United States. Since his election in July, the two nationalist leaders have been getting along well. They have exchanged letters. The American president is said to have nicknamed his soon-to-be Mexican counterpart "Juan Trump".

In his letter to Mr Trump, Mr López Obrador proposed a plan to stem migra-

tion under which the two governments would spend three times as much on economic development in Central America as they do on border security. That would build on the United States' pre-Trump policy of spending money to reduce crime and hardship in the northern triangle in the hope of persuading people to stay there.

But such policies demand patience, and Mr Trump is not a patient man. Conflict between the presidents seems likelier than co-operation. Mr López Obrador will probably reject Mr Trump's request for Mexico to classify itself as a "safe third country", which would make it nearly impossible for Central Americans to seek asylum in the United States. Mr Trump has cut aid to Central America by 20% and wants to slash it further. He still wants a wall between the United States and Mexico. If Mr Trump gets his way, Mr López Obrador will have to figure out on his own how to care for Alberto, Gabriela and others like them. ■

The war on drugs

Unlikely allies

LA PAZ AND LIMA

Peru and Bolivia have different attitudes, but similar strategies

IN THE early 1980s Peru's government founded Ciudad Constitución to be the capital of the country's Amazon region. Today, it serves as the capital of Peru's war on drugs. Clandestine airstrips etched into the jungle make the area a hub for smugglers. They form part of an "air bridge", with small planes flying in from Bolivia to pick up cocaine paste or refined cocaine, stopping in Bolivia to refuel and then heading to Brazil, from which the drug is dispatched to Europe. A single plane can carry 300kg (660lb) of cocaine, worth some \$350,000.

Peru and Bolivia, which co-operate to disrupt the air bridge, are an odd anti-drug duo. Peru is a partner of the United States, from which it gets \$120m a year to fight the narcotics trade. Bolivia's president, Evo Morales, once led a coca growers' union and in 2008 expelled the United States' Drug Enforcement Administration. Both countries allow some coca cultivation (for traditional uses like chewing). Bolivia nearly doubled the area on which farmers can grow coca to 22,000 hectares in 2017.

The United States has "decertified" Bolivia's anti-drug programme every year since 2008 and contends that Bolivia, like Venezuela, has "failed demonstrably" to carry out international and American drug-control policies. Yet Peru is the bigger producer. It grows enough coca to make 410 tonnes of cocaine a year, while Bolivia's potential is 275 tonnes. Most of the co-

caine seized in Bolivia comes from Peru.

Neither country is winning the battle against it. In Peru, smugglers restore airstrips as soon as police dynamite them, says Héctor Loayza, the general in charge of Dirandro, the anti-narcotics agency. Bolivia has more aircraft and airstrips, in part because "air taxis" are used as transport in forested areas, such as the Beni department. Dirandro and FELCN, Bolivia's anti-drug police, identified hundreds of flights in the first half of this year but seized only six planeloads of drugs, partly because of the time it takes to scramble helicopters.

Sometimes the narcs' perseverance beats the smugglers' ingenuity. Last October Mr Loayza's agents found 1.3 tonnes of cocaine that had been shaped into irrigation pipes. But such successes are exceptions. FELCN and Dirandro each interdicted only around ten tonnes of coca-based products in the first half of 2018.

Marco Ibáñez, FELCN's chief, complains that his force of 1,400 agents is about "one agent per airstrip". Policing Bolivia's 1,000km (620-mile) border with Peru, as well as its 3,300km border with Brazil, is a "struggle". Both agency chiefs plead for more manpower. Even more important, they say, would be authorisation to shoot down suspected drug flights. "All we need is the green light, and the next day" smugglers will abandon the air bridge, says Mr Loayza. He points out that, in 2016, traffickers mistakenly thought that two aircraft had been shot down. The drug flights "disappeared for two months", he says.

If the governments had their way, their agents would get that tool. Bolivia approved a law in 2014 that allows air interdiction. The defence minister, Javier Zabala, said in July this year that it would be implemented as soon as a new radar system was operational. Peru passed a similar law in 2015.

In fact, neither country is likely to shoot down drug flights. The United States has been opposed to the tactic since 2001, when Peru mistakenly downed a plane carrying American missionaries. The European Union will dissuade Bolivia, to which it gives €35m (\$40m) a year in anti-drug aid. Shoot-down laws violate international law, wrote Alonso Gurmendi Dunkelberg, a legal scholar, last year. Besides, the practice would encourage armed groups to chaperone drug shipments overland, spreading criminality.

A better idea, until drugs are legalised, would be to strengthen co-operation between Peru and Bolivia. Peru, for example, does not share intelligence. The United States could encourage teamwork, by treating Bolivia not as an enemy, but as an ally in the drug war. ■

Correction: In an article about cannabis in Canada ("The high street", August 4th) we described Nova Scotia as a north-eastern province. In fact, as many readers pointed out, it's in the east, but not northern. Sorry.

The Trump effect

Migrants apprehended by the United States on its border with Mexico, '000



Source: US Department of Homeland Security



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Malaysian politics

Mahathir's second act

KUALA LUMPUR

The new administration bows to a political veteran's old ways

IT IS about 100 days since the leadership of Malaysia changed hands after 61 years of rule by one party. The electoral victory in May of Pakatan Harapan (PH), a coalition of parties, startled many people in Malaysia and beyond. The upset also surprised PH itself. Most members of the cabinet are still struggling to get the hang of what being in power entails. Malaysia's nonagenarian new prime minister, Mahathir Mohamad (pictured), is an exception. He already has plenty of form as a national leader.

Dr Mahathir had previously run the country for more than two decades as a leader of the United Malays National Organisation (UMNO), the party which until the election had dominated Malaysian politics since independence from Britain in 1957. He had even mentored his ousted predecessor, Najib Razak, who now stands charged with graft, abuse of power and money-laundering. Back when its success at the polls seemed most unlikely, PH made bold pledges about what it would achieve in office. But the disparity of experience between the fledgling ministers and their grizzled leader is hindering its efforts.

The new administration has made at least some progress in most of the areas in which it had promised early results. These include action against Mr Najib and others over the scandal at 1MDB, a state investment fund from which \$4.5bn disappeared during the previous administration; the

abolition of an unpopular goods-and-services tax (GST); and the reintroduction of certain fuel subsidies. PH had promised an investigation into whether megaprojects involving foreign countries were worth the money. The result: infrastructure deals, including pipelines built with Chinese help and a high-speed rail project planned with Singapore, have either been cancelled or cut back.

But there are headwinds. Scrapping the GST will mean a fall in revenue: it brought in 45bn ringgit (\$10.5bn) last year. This could be partly remedied by a new sales tax which the government plans to introduce in the coming weeks, and which is expected to be less onerous on consumers than the GST. High oil prices might also help meet the budget shortfall, since the government sucks up royalties from the state oil firm, Petronas. But there will still be fiscal pain, reckons Yeah Kim Leng of Sunway University in Kuala Lumpur.

The old man's old style

Because of the inexperience of his cabinet, Dr Mahathir has, in effect, become chief of everything. This creates a bureaucratic bottleneck as he ponders investigations into 1MDB, diplomacy (he has already taken two trips to Japan and is due to visit China on August 17th) and ways of boosting economic growth (expected to be about 5% this year, down from nearly 6% in 2017).

PH vows to show greater respect for hu-

man rights than UMNO did. (Mr Najib's henchmen often bullied journalists, activists and others.) However, the prime minister rules in the way he knows. He favours the advice of cronies, as well as of an unelected council of bigwigs selected by himself. His autocratic style can make people jump. Last month all the board members of Khazanah Nasional, the country's sovereign-wealth fund, resigned after he criticised their investment strategy (he said they were not doing enough to help firms owned by ethnic Malays).

Despite his self-deprecating jokes about his dictatorial style, Dr Mahathir is clearly reluctant to share power with others. But at least superficially, he has reduced the responsibilities that previously accompanied his job. Before he took over, the prime minister was also the minister of finance and supervisor of the election and anti-corruption commissions. Now Lim Guan Eng, a Chinese-Malaysian who once ran the state of Penang, is finance minister and the two commissions have been placed under the oversight of parliament.

Mr Lim's appointment is an unusual move for Dr Mahathir, widely regarded as a champion of Malays and other indigenous groups (who make up 69% of the population) and the privileges accorded to them in Malaysia's constitution. In a nod to the multiracial policies of PH's dominant parties, the country now also has an ethnic-Indian attorney-general, the first non-Muslim to hold the post.

However, the new government is unlikely to attempt radical reforms to racial policies that favour indigenous people, for example in admission to public universities and recruitment for government jobs. The ruling coalition hangs together in part because all of its parties have agreed to uphold this system. Politicians of every stripe fear a backlash from ethnic-Malay voters ►►

► should their privileges be curtailed.

But civil-society activists are disappointed that the government has failed to remedy what they regard as relatively simple problems relating to human rights. For example, it has yet to fulfil a pledge to repeal oppressive laws, such as one passed by the previous government to combat “fake news”. The Sedition Act, used to prosecute government critics, also remains in place. The government has made little progress towards meeting another promise, outlawing child marriage.

Neither has it made much headway with other commitments, such as to raise

the minimum wage and introduce a health-care scheme for the poor. Bureaucratic resistance may be partly to blame. Last month the head of the civil service ordered senior officials to identify saboteurs loyal to the old regime in their departments. Dr Mahathir is trying to replace 17,000 political appointees who served under Mr Najib. But Isham Ishak, the most senior civil servant at the Ministry of International Trade and Industry, worries that a “trust deficit” will remain between new leaders and their minions.

Overall approval ratings for the new administration remain high. But Malaysia is

already wondering about its next leader. Dr Mahathir has promised to give the job within two years to Anwar Ibrahim, a former UMNO colleague who was locked up both by Dr Mahathir and by Mr Najib on spurious sodomy charges. Mr Anwar was freed from prison shortly after the election and leads the most prominent party in the coalition, Parti Keadilan Rakyat. More recently, Dr Mahathir has said that letting Mr Anwar take over after two years was only “a suggestion”. But if he does step down in the proposed time frame, Dr Mahathir does not have long to enact the policies he cares about. ■

Philippine-American relations

A peal for friendship

MANILA

Church bells may heal old war wounds

THE last time any of the bells of the Church of St Lawrence the Martyr rang out in the central Philippine town of Balangiga was in 1901. Spain had ceded the Philippines to America three years earlier. Filipino independence fighters regarded American soldiers first as liberators to be welcomed, but later as invaders to be resisted. In Balangiga, about 500 men of the town, some disguised as women, attacked the occupying soldiers as one of the bells tolled. The attackers killed 48 Americans and wounded 22, letting only four escape unharmed. It was the bloodiest defeat for American forces since Custer’s last stand, and Philippine forces’ biggest single victory in their war to prevent America from replacing Spain as their colonial master.

In retribution, the American commander in the area ordered his men to turn that part of the country into a “howling wilderness” and kill every male Filipino over the age of 10. American soldiers seized the church bells and burned down the town. Nobody quite knows how many Filipinos were killed, but the number was probably in the thousands. The church bells of Balangiga thus became symbols that stir powerful emotions among Americans and Filipinos alike, even today. The two countries are allies, but the question of possession of the bells of Balangiga still festers.

“Those bells are reminders of the gallantry and heroism of our forebears who resisted the American colonisers and sacrificed their lives in the process,” Philippine President Rodrigo Duterte said last year. “They are part of our national heritage. Return them to us. It pains us.” The bells are also painful reminders to Americans, especially ex-service personnel, who have resisted previous efforts to restore them to the Philippines.

Now America is planning to return the bells to Balangiga. James Mattis, America’s defence secretary, is expected to sign an order to that effect. There may be opposition to the move in Congress, but there are more powerful forces at work than historical memories. Although America and the Philippines have taken different approaches to Chinese expansion in the South China Sea—the former confrontational, the latter conciliatory—both countries have an interest in strengthening their alliance in the face of this challenge.

The Church of St Lawrence the Martyr has a modern belfry standing empty, ready to receive the bells of Balangiga. After 117 years, modern geopolitics may soon allow them to ring out over the town once again, this time in peace.



In an air-force base in Wyoming, for now

Afghanistan’s endless war

Rude awakening

The Taliban flaunt their strength

SOME time after midnight on August 10th, residents of Ghazni, a large town straddling one of Afghanistan’s busiest road arteries, awoke to the rattle of intense gunfire. By morning it was clear that an invading force of Taliban fighters had reached the city centre. Only after four days of fighting, the dispatch of 1,000 Afghan army reinforcements and some three dozen air strikes by American warplanes did the Taliban withdraw.

Residents of the city of 250,000 have been burying the dead and sweeping up. The UN estimates civilian casualties at 110–150. The American-led coalition that props up the Afghan government said its air raids alone had killed over 200 Taliban fighters. Losses among government forces may have been as high as 100. Several government offices were destroyed or damaged.

The deeper damage was not to lives or property but to the dwindling prestige of the Afghan government. The Taliban’s brief capture of Ghazni repeated its feats earlier this year in the western town of Farah, and last year in the northern city of Kunduz. The difference is that Ghazni lies just 150km (90 miles) from the capital, Kabul, along the main road linking it to the south. The guerrillas sauntered in from several sides of the city, despite plenty of forewarnings about a possible move. This suggested arrangements for its defence were, to say the least, lacklustre.

Reuters quoted a Taliban source as saying the attack was “to convey a message to the Americans, their allies and the puppet government in Afghanistan that if we want, we can target them any time and anywhere.” And if the strike on Ghazni was meant to show the fragility of the government in Kabul, other recent events un- ►►

derlined it further. At the same time, government forces lost another 70 lives to separate Taliban attacks across the country. On August 16th a suicide-bombing, widely blamed on Islamic State rather than the Taliban, struck a training centre in a Shia district of Kabul, killing around 50 students.

Despite the grim toll, however, more hopeful signs are emerging. The Taliban have hinted at a temporary ceasefire to mark Eid al Adha, the Muslim feast celebrating the end of the Mecca pilgrimage, beginning on August 21st. A similar pause over the previous Eid, in May, produced rare scenes of fraternisation between Taliban and government forces. There is also talk of plans for a second, more substantive round of negotiations between American and Taliban envoys, following initial contacts in Qatar earlier this year. ■

Police in India

Politicians' pets

DELHI

The shortcomings of India's police are not entirely their fault

EVERY summer across north India, millions of Hindu youths honour Lord Shiva by travelling to the sacred Ganges to collect holy water for anointing the Shiva lingams in their local temples. The pilgrims travel on foot and use a wooden yoke or *kanvar* to balance two small buckets. But though the sight of orange-clad *kanvarias* on country roads is picturesque, the scene Indians may remember best from this year's *Kanvar Yatra* took place in the crowded heart of Delhi, India's capital.

Mobile-phone footage captured a gang of *kanvarias* smashing a small passenger car to pieces and then tipping it over. Yet it was not this sudden fury—provoked, apparently, by the driver causing one man to spill some water—that shocked Indians. What rankled most was seeing two armed, crisply uniformed police officers wander into the melee and watch, making no effort to stop the methodical demolition of some poor citizen's property on a busy street.

India's 1.9m policemen do not, by and large, enjoy a good reputation. It is easy to understand why. A simple glance at recent news clips substantiates a range of complaints. Are police corrupt? Consider that public rage over extortion by traffic police has prompted the state of Uttarakhand to forbid its finest to carry more than 200 rupees (\$2.85) in cash. Brutal? A high court has just ordered an independent investigation into the killing by police gunfire, including from sniper rifles, of 13 people at a peaceful protest against the pollution caused by a copper smelter. Ineffective? In

recent incidents of mob lynching that have shocked India, perpetrators have repeatedly explained that they had to take the law into their own murderous hands because the police were absent or unreliable. Callous and incompetent? When a seven-year-old boy was murdered in the bathroom of a private school last year, police in a Delhi suburb forced the lower-caste conductor of a school bus to confess and closed the case. Weeks later a court-ordered reinvestigation used previously ignored CCTV footage to reveal that the killer had been an older student.

Are police in the pockets of powerful politicians? Consider that Delhi police answer not to the city government but to the home ministry, run by the rival Bharatiya Janata Party of the prime minister, Narendra Modi. The city's ruling party is Aam Aadmi. Since winning Delhi's election in 2015 it has complained of continuous petty harassment. Among other things, police raided one official's home and then charged him for possessing a bit more alcohol than is permitted by the arcane Delhi Excise Act. Courts have thrown out 19 out of 22 cases filed by Delhi police against Aam Aadmi's senior members.

But while lurid press coverage makes it easy to spot police shortcomings, it does less to explain them. Talk to policemen themselves and the reasons for poor performance become clear. There are, to start with, too few of them. Excluding paramilitary forces and riot squads—and including only those in active service rather than the number that governments, for budget purposes, claim are working—India's ratio of ordinary policemen per 1,000 people is just 1.2, about half the level recommended by the UN. By the government's own reckoning, the country has 600,000 too few of

them. Contrary to impressions of laziness, Indian police tend to be overworked. A national survey in 2014 found that 90% of officers worked longer than eight hours a day, and 73% got no more than one day off per week. Researchers say the recent introduction of eight-hour shifts in the state of Kerala and for city police in Mumbai has radically improved morale.

Police also spend much energy doing things other than fighting crime. Akshay Mangla of Oxford University reckons that in the state of Madhya Pradesh, election duties alone take up between a sixth and an eighth of all police time. This does not just mean providing security to campaign rallies, or protecting ballot boxes in endless rounds of polls. Rules intended to prevent corruption or political bias require that as many as half the higher-ranking officers in the state must be transferred to a new district before every major election.

The administrative structure of the force has changed little since the British Raj. Some two-thirds of police are lowly constables, typically with little training, limited equipment and no powers to arrest or investigate. At the pinnacle stand the 5,000 members of the Indian Police Service, a national corps that before 1920 was staffed only by British officers. Selected via competitive exams, these elite officers rarely stay in a post more than two years, but enjoy housing, transport and other perks. Between them and the lowest-ranking policemen are officers in various state police forces who hold full responsibility for everyone junior but enjoy no influence over their pampered superiors. "Basically they have not invested in middle management," says Mr Mangla.

One frustrating result is that police stations are often reluctant to issue First Information Reports (FIRs), the necessary beginning to most legal action in India. Mr Mangla explains that since the performance metric that gets reported upwards is the proportion of FIRs that a station investigates and closes, "there is every incentive to keep this denominator low."

Complaints about India's police are nothing new. Successive national commissions since the 1970s have urged a range of reforms, which have largely been ignored. A report in 2018 by the Commonwealth Human Rights Initiative, an NGO, measured compliance by Indian states with six separate directives on police reform issued by India's Supreme Court in 2006. Not a single state had fully complied. Small wonder many Indians have concluded that politicians are unwilling to reform the police, because the force serves the interests of politicians perfectly well. The police agree. One state's police chief recently asked officers to rank their top three problems. In ascending order, they were poor communications inside the force, lack of manpower or resources—and meddling politicians. ■



At least their uniforms are spotless

Banyan | Peril in smooth waters

Tensions have subsided on the Korean peninsula. Dangers still abound



AFTER a summer lull, the whirlwind of North Korea-centred diplomacy that marked the first half of the year is about to resume. This week officials from North and South Korea met at the truce village of Panmunjom in the demilitarised zone on the border and declared that their leaders would meet, for the third time, in Pyongyang, the North Korean capital, next month. Kim Jong Un, the North's dictator, and Moon Jae-in, the South's president, first met only in April. It all represents an extraordinarily rapid change following previously frozen relations—and North Korean nuclear belligerence.

Mr Kim's nuclear and missile tests, which he suspended late last year, infuriated China, the North's historical protector, as much as they unsettled the South. Yet President Xi Jinping has invited him to China on three occasions this year, and he may honour Mr Kim with a visit to Pyongyang around the time of the 70th-anniversary celebrations of the communist state's founding on September 9th. Nothing has been announced by the secretive states. Yet the sudden cancellation of Chinese tourist visits to North Korea, the announcement of a "renovation" of all of Pyongyang's hotels, plus a crackdown on smuggling along the two countries' border, suggest preparations for a high-level visit.

South Korea and China represent two of Mr Kim's opponents in a four-way chess match. His most important challenger is the United States. He is doing well there too. President Donald Trump still luxuriates in the memory of the two men's made-for-television pageant in Singapore in early June. Mr Trump declared it a triumph for peace on Earth, and took the credit. Yet Mr Kim took the limelight, holding Mr Trump in his hand. His next stage may be at the UN General Assembly in New York in late September. An invitation to the White House still stands.

Yet for Mr Trump's people, all is not well. So far, the post-summit diplomacy led by the secretary of state, Mike Pompeo, has little to show. The North claims that quite apart from its moratorium on nuclear and missile testing, it has dismantled an underground nuclear site and returned the supposed remains of 55 American soldiers missing in action during the Korean war of 1950-53. Such goodwill now deserves an easing of American-led UN sanctions, it feels. Above all, why no American good faith in discussing an important aspect of the Kim-Trump accord in Singa-

pore: an agreement to work towards a stable and lasting "peace regime" on the Korean peninsula? In their declaration, that came above the commitment to abandon nuclear weapons. In North Korean-speak, peace regime means the replacement of the armistice that suspended the Korean war with a full peace treaty.

For American negotiators, who know their president had the wool pulled over his eyes in Singapore, things look different. They know that the "denuclearisation" agreed to in Singapore means, in North Korean eyes, the removal of all American forces from the Korean peninsula, along with the American nuclear umbrella under which South Korea is currently sheltered. A "peace regime" implies the same thing. Yet in the absence of a timetable for abandoning the North's nukes, along with clear steps for verification, "denuclearisation" is meaningless—and a peace treaty an unwarranted, even risky, gift to the North. Early this month the American ambassador to South Korea, Harry Harris, a former chief of American forces in the Pacific, said that any discussions about an official end to the Korean war should begin with a North Korean declaration of where its nuclear facilities are.

Yet since the Singapore summit, North Korean negotiators have refused to declare the extent of their nuclear weapons, let alone discuss dismantling them. Indeed, satellite evidence suggests the North is continuing to develop them. Vox, an American news website, reports that in the latest discussions in Pyongyang Mr Pompeo proposed that North Korea hand over 60-70% of its warheads (thought to number up to 60 in total) within six or eight months. Whatever Mr Pompeo asked for, he returned empty-handed. North Korea called his demands "gangster-like".

The Americans are in a fix. The sanctions designed to punish Mr Kim for his missiles and that helped bring him to the table risk unravelling. China was a key enforcer. For a year or more until early this summer, China backed a ratcheting-up of sanctions. Now it is in a full-blown trade war with America, it feels less inclined to support America over North Korea. Mr Xi's appearance in Pyongyang would suggest that economic ties are on the mend. Already, sanctions-busting business across the border with China is growing. Russia is not helping either. Since last September, over 10,000 North Koreans have been registered to work in Russia—in contravention of a UN ban.

Meanwhile, what its backers in South Korea call the North-South "peace train" looks to others like a runaway one. Mr Moon is a strong backer of the North's calls for a peace treaty. His promise on August 15th of road and railway links with North Korea speaks to his hopes of shared prosperity. But it generated unease in Washington. Mr Moon has long pushed the idea of two Koreas co-existing peacefully. At times he seems to envisage a confederation, with the Kim dynasty still in charge of the North, and the labour camps presumably still full of political prisoners.

Until the next tantrum

For now, thanks to Mr Moon, South Korea has skilfully averted open disagreement with the United States over North Korean matters. Yet South Korean and American interests are undoubtedly diverging. Before long, Mr Trump might interpret that as a personal betrayal by Mr Moon—with unpredictable consequences. He might, one day, even have to acknowledge that his new friend Mr Kim has strung him along—and react with fury. With sanctions a less effective tool, a military option—the so-called "bloody nose"—could appeal again. For all the sunny diplomacy, danger still runs deep on the Korean peninsula. ■



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Reform experiments

Feeling the stones

LINYING

Under Xi Jinping, China is losing its creativity with reform experiments

STANDING at the edge of a field where this soyabean crop will be harvested in a month's time, Liu Xijiang gives a tepid review to a local experiment with rural land reform which the central government is promoting as a great success. "It's a good idea and it's working well enough, but in reality it doesn't make all that much difference to most of us," he says. The experiment in Linying, a county in the central province of Henan, relates to one of China's biggest policy conundrums: how to let farmers squeeze more value from the tiny parcels of land allocated to them than they can earn by farming it themselves.

Officials resist the obvious solution—letting them sell it, build on it or rent it out for other purposes. That, they fear, might lead to an unacceptable loss of arable land. But in 2014 the central government began allowing localities to test ways of helping farmers to sell the right to use their land for agricultural purposes. (Many places had been quietly allowing this anyway.) Ownership would remain, in effect, in the hands of the state, which allows farmers to use land on renewable contracts.

Linying county, in China's agricultural heartland, responded by establishing what officials called a "land bank"—a government-run intermediary between farming households and investors who want to take over farmers' contracts and work the land on a bigger and more efficient scale.

State media say that farmers have put almost 17,000 hectares, or half of the country's farmland, into the land bank. Much of this has now been consolidated into large farms, which are proving more profitable than smallholdings.

Though it brooks no dissent and has a taste for strongman politics and centralised leadership, the Communist Party has shown an admirable willingness to let small areas of the country try out reforms before they are introduced nationwide. These local experiments with reform have been cited by some Western scholars as examples of China's "adaptive authoritarianism". This is a way of describing the party's ability to avoid the fate of its coun-

terparts in other communist-ruled countries by flexibly adjusting policy in order to satisfy public demands for greater prosperity. The pilot system has been an important means of achieving this. There are signs, however, that it is losing steam.

In the past, the central government was sometimes ready to devolve considerable power in order to promote experiments with reform. Take the "special economic zones" (SEZs), which the party set up along the southern coast in the 1980s. In these, local officials were given extraordinary leeway to approve foreign investments, grant tax breaks and waive price controls. Their experiments succeeded in producing rapid economic growth. They were, in effect, the pilot projects for the market-oriented policies that helped China become the economic giant it is today.

A raft of other experimental reforms followed elsewhere, including the introduction of stock exchanges and greater tolerance of private enterprise. Xu Chenggang of the Cheung Kong Graduate School of Business in Beijing says that in the first three decades of the reform era, which was launched by Deng Xiaoping at a meeting of the party's Central Committee in December 1978, nearly all the main economic changes began as local pilot schemes. "Crossing the river by feeling the stones" was how reformists described the process (contrary to common belief, there is no record of Deng having said this).

This year, with relentless fanfare, China has been trumpeting the 40th anniversary of Deng's reforms. But in what the party calls the "new era" under Xi Jinping, the current leader, officials show less enthusiasm for creative experiments.

The land bank in Linying is one underwhelming example. For each *mu* of land (about one-fifteenth of a hectare) that he

Trepidation

China, number of provincial-level policy pilots



Source: "Leninism upgraded: Xi Jinping's authoritarian innovations", by S. Heilmann, *China Economic Quarterly*

rents out through the land bank, Mr Liu, the soyabean farmer, receives 900 yuan (\$130) yearly. That's roughly what he could earn from farming. But the money from the land bank is guaranteed, even in years of poor harvest. He gets it without any labour, which gives him time to work in town. That provides about 3,000 yuan a month, his main income. "But the truth is, we've always been able to find people to rent to on our own. Less paperwork, no one interfered and the result was the same," he says. Early in Mr Xi's rule, which began in 2012, there was speculation that more profound change in the rural land system might be in the offing, possibly allowing farmers to sell at least some of their land. Not much has happened.

Even before Mr Xi took over, the pace of experimentation had been slowing. Sebastian Heilmann of the University of Trier in Germany reckons that the number of provincial-level policy pilots declined from around 500 in 2010 to about 70 in 2016 (see chart on previous page). Over the same period, the share of national regulations with experimental status dropped from nearly 20% to about 5%.

But the decline is partly the result of Mr Xi's hardline rule. This has been a surprise to many observers, given the reformist credentials of his late father, Xi Zhongxun. (As party boss of Guangdong province, the elder Mr Xi oversaw the founding of the most important SEZ, Shenzhen.) The younger Mr Xi's ruthless crackdown on corruption and demands for unswerving loyalty to himself as the leadership's "core" have spread fear among bureaucrats. Few want to risk the unwanted attention that might result from reforms going badly. Mr Heilmann says the central government has also become less open to input from below. "Experiences and initiatives put forward by various regions tend to be ignored" under Mr Xi's more centralised and personality-based leadership, he says.

Local trials are still being carried out. The decision by China's legislature earlier this year to establish a national anti-corruption agency, for example, followed the successful piloting of such bodies in the provinces. In 2016 experiments were launched with innovative public-private ownership structures at some of the country's largest state-run enterprises. Last year five pilot "green finance zones" were established in various parts of the country. These are intended to try out markets for the trading of water- and energy-use rights and, it is hoped, help banks to lend in an environmentally friendly way.

But the growing indifference of the central leadership to feedback from the grassroots is hampering experiments. So too is a problem that long predates Mr Xi's rule: a culture of secrecy that often shrouds pilot projects, especially in their early days. Investigations of them by Chinese journal-

ists are often consigned to classified publications (a widely read one among the elite is called *Reform Internal Reference*—the fortnightly magazine is marked "secret", which means that showing it to unauthorised eyes could result in years in jail). Even when state media are given permission to discuss pilot schemes, they often gloss over any flaws. Public opinion is routinely ignored. "This should involve more civil-society participation," says Cui Zhiyuan of Tsinghua University in Beijing. But Mr Xi has been even tougher on civil society than his predecessors. He has tried to strengthen the party's control over NGOs and suppress those that argue with the government. Experimentation in this area is something he will not accept. ■

Education

Taming the tigers

The government sounds the alarm over stressed-out schoolchildren

LIN MING, a ten-year-old who has two years left at his primary school in Beijing, does not remember the last time he returned home before 6pm on a weekday during term. As soon as school is out, his mother, Yang Mei, shuttles him around the city, dropping him off at tutoring agencies where he studies advanced maths and English grammar. Ms Yang accepts that she is "maybe putting a bit too much stress" on her son. But she has no choice. "Around 90% of my son's classmates attend after-school lessons. It's a competition I can't lose." When the new academic year begins next month, Ms Yang estimates that she will spend 3,000 yuan (\$435) a month on

her son's tutoring, about one-fifth of her household's monthly income.

Many Chinese schoolchildren do well academically. In the latest Programme for International Student Assessment (PISA) test, held in 2015, Chinese 15-year-olds in some cities did better in science and maths than their counterparts in most members of the OECD, a club mostly of rich countries. Yet Chinese officials worry that pupils' achievements may exact too heavy a mental and physical price. In July the Ministry of Education released its first "comprehensive quality assessment" of the country's primary- and junior-high school education. The unusually critical tone of the 26-page report has been causing a stir among China's online commentators.

One concern the document raises is that pupils get too much homework. The ministry reckons that nearly one in ten pupils in the penultimate year of primary school spend more than two hours on Chinese-language homework alone, every school day. Even before the report was published, some education authorities had been trying to lighten workloads. In March, for example, primary-school pupils in the eastern city of Hangzhou were told by their teachers to stop doing homework at 9pm if they were unable to complete it by that time. Junior-high school pupils were given until 10pm.

Another, related, problem is that Chinese pupils are out of shape. Nearly a fifth of nine-year-old boys and 13-year-old girls are overweight or obese, says the report. That is partly because many schools, often under pressure from tiger parents, teach more sessions of core subjects like maths and Chinese than is required by the education ministry, bumping physical-education classes. From now on, however, schools will be evaluated not only on how well pupils do in academic tests but also on their athletic ability, based on their per- ▶▶



Such, such were the joys

▶ performance in challenges such as 50-metre sprints and standing long-jumps.

Yet the ministry's harshest criticism is reserved for schools and tutoring agencies that overburden pupils by "teaching ahead"—imparting knowledge that is too advanced for a given age group. Zhang Ling, the head of Ben Jen kindergarten in Beijing, suspects that most nursery schools in the city use materials that are designed for the first or second years of primary school. That will no longer be allowed.

In July the ministry ordered kindergartens nationwide to focus on "fun and games" in the classroom. Fun inspectors will be dispatched later this year to enforce this. Ms Zhang, who says her kindergarten was already in compliance, welcomes the greater scrutiny. She says she can now wave an official document at parents who insist that their children be exposed to too-advanced academic fare.

To ensure that tutoring outfits do not offer "unsuitably" stretching courses, the government instructed them in February to provide education authorities with details of syllabuses and lists of their pupils along with which year they are in at which school. They must also agree to spot inspections. The ministry is cracking down on rogue pedagogues who refuse to teach academic material in school, and instead steamroller pupils into attending evening classes at tutoring centres where the teachers moonlight. This summer 31 teachers in the northeastern city of Harbin received unspecified punishment for doing that.

Ms Yang, the parent, says the new rules are well-intentioned, but may end up hurting middle-class folk like her. That is because those with deeper pockets can always hire home tutors, who are difficult for the government to monitor, to teach their little ones the advanced stuff. A customer service agent for Xue Er Si, a national tutoring chain, says the new restrictions mean that classroom-based tutors will have to be more cautious about what they teach. But she nonetheless reassures parents that the course content will still be harder than that found in school textbooks.

The clampdown on over-eager teachers and out-of-school instructors fails to tackle the root cause of pupils' stress, notes Zeng Xiaodong of 21st Century Education Research Institute, a Beijing-based think-tank. As long as admission to senior-high schools is based on results from the grueling *zhongkao* exam, parents are likely to exploit every loophole to give their children an edge. Typically only the top 60% of *zhongkao*-takers secure a spot at an academic school. The rest are shunted to vocational ones. A better way to reduce stress for young children, argues Ms Zeng, is to scrap entrance exams to senior-high schools. The education ministry has correctly identified a problem. It needs to study harder how to solve it. ■

Muslims

And hell is just a sauna

BEIJING

China suggests its re-education camps for Uighurs are just vocational schools

DURING the past year campaigners, academics and journalists have been shedding light on the detention for "re-education" of vast numbers of ethnic-Uighur Muslims in China's far-western province of Xinjiang. On August 13th the topic was raised at the UN, when experts undertaking an audit of China's policies towards ethnic minorities said they had heard that as many as 1m Uighurs are being locked away. Hu Lianhe, a Communist Party official flown in for the hearing, said allegations that the party was sending Uighurs to indoctrination camps were "completely untrue". He explained that some petty criminals in Xinjiang were being assigned to "vocational education" facilities for "rehabilitation and reintegration", but did not say how many.

The party appears to think that obligatory periods of forced instruction, sometimes lasting weeks or months, are a good way to tackle the Islamic extremism and secessionist thinking that it says threaten Xinjiang's stability. People who have worked or been detained in the centres say that inmates have had to sing Communist Party songs. According to the *Washington Post*, a few have been made to consume pork and alcohol. In some cases they have been subjected to physical abuse. But Mr Hu's rebuttal nonetheless provided slightly more detail than has previously been volunteered by officials. In May China's foreign ministry told reporters who had visited Xinjiang

that it simply "had not heard" of the situation they described.

As it becomes harder to keep the mass detentions under wraps, Chinese officials will probably grow both franker and pricklier about their behaviour. In an editorial published on August 13th, *Global Times*, a tabloid with close links to the party, accused the West of trouble-stirring. It insisted that the party's strategies had successfully prevented Xinjiang from turning into "China's Syria". It declared that "all measures" were acceptable in the name of ensuring peace and stability, which it called "the greatest human right". This month Radio Free Asia, an American-backed broadcaster, published the transcript of an audio recording, which it said that Xinjiang's branch of the Communist Youth League had produced in order to help explain the detentions to the province's residents. The recording asserts that people who are selected for re-education are "infected by an ideological illness" that could "manifest itself at any moment". It says that inpatient treatment at a "hospital" is necessary to "restore their normal mind".

In addition to its indoctrination efforts, the party has deployed a vast surveillance apparatus in Uighur areas of Xinjiang, making many aspects of daily life more complex (police are pictured outside a mosque in Kashgar, a southern Xinjiang city). In early August police in Henan, a province more than 2,500km from Xinjiang, said they had imprisoned and fined a man who rented rooms to three Uighur bakers (his crime, it appears, was not asking police permission first). The Uighurs themselves were transported to Xinjiang, according to the notice. A citizen who had alerted police to their presence was reportedly given a 2,000 yuan (\$290) reward.

Muslims elsewhere in China are also growing nervous. As part of a broader project to "sinicise" religions such as Christianity and Islam, authorities in the province of Ningxia—home to many Hui people, a well-integrated Muslim minority—have been dismantling mosques' domes and minarets and stifling their calls to prayer. This month officials in the town of Weizhou abandoned plans to demolish a big mosque they said had been built illegally, after a large crowd of angry Huis mounted a vigil outside. It is difficult to see how such stand-offs help promote the peace and stability China's leaders claim to crave.



Any faith you like, as long as it's patriotic



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Injustice in Kenya

Who will police the police?

NAIROBI

Efforts to tackle official corruption and police brutality are failing in Kenya

FINDING evidence of police brutality in Kenya should not be too tricky. Amateur footage of officers shooting suspected crooks in the back of the head is shared on social media. Vigilante police groups post photographs of suspects they have killed, or intend to kill, on Facebook. "Let them have their time in hell," one officer wrote beneath an image of a bloody corpse.

Yet since starting work six years ago, Kenya's police watchdog has managed to secure convictions against just three officers, despite receiving nearly 10,000 complaints of abuse. The Independent Policing Oversight Authority (IPOA) was among a raft of state institutions established under Kenya's constitution of 2010. The new dispensation was meant to make the country fairer and less corrupt after 1,400 people were killed, hundreds by the police, in a disputed election three years earlier.

Little has changed. Corruption scandals abound and inequality persists, even as Kenya grows richer. When the country returned to the polls last year, 92 people died, according to a government-appointed commission. Most were killed by the police, who were also accused of mass rape and torture.

IPOA was a bold creation. When it was formed, there was only one police watchdog in sub-Saharan Africa. Yet its paltry conviction rate has disappointed many.

Activists blame internal divisions and poor investigative skills for some of its shortcomings. After police raided a house during last year's election violence and allegedly beat to death a six-month-old infant, IPOA failed to identify the culprits. Instead it recommended a judicial inquest, which often takes years to complete.

See something, say nothing

IPOA has a poor record on witness protection, too. In 2015 three officers visited the home of Josephat Mwendwa, a motorcyclist who complained to the authority that he had been shot and wounded by the police. "We will kill you and your body will never be found," the officers allegedly told him. Six months later the mutilated corpses of Mwendwa, his lawyer and the taxi driver who had driven them to court were found in sacks by a river. They had last been seen in a police cell. Such incidents inevitably deter complaints.

IPOA's relationship with the police itself is troublingly fraternal. In June an inquest ruled that Alexander Monson, a young Briton, had been beaten to death by the policemen who detained him on suspicion of possessing cannabis in 2012. The Monson case was IPOA's first investigation, and the body hailed the ruling as a triumph. Yet it had previously backed tendentious police claims that the Briton died

of a drug overdose, even theorising in court that bruises to his groin were caused by vigorous oral sex.

Such convolutions point to deep-seated problems within many of Kenya's new watchdogs. The state bodies they oversee are too powerful and have little incentive to co-operate. Policemen who kill or injure suspects are meant to report themselves to IPOA, but because there is no punishment if they do not, few bother. Evidence is often destroyed, while officers refuse to testify against those being investigated, an IPOA official complains.

Self-preservation hampers progress too. Kenya's president, Uhuru Kenyatta, largely selected the panel that chose IPOA's board. The body's budget, like those of other oversight bodies, is set by parliament, which the ruling party dominates. Going after the powerful and politically connected is risky.

So IPOA has restricted itself mainly to investigating low-ranking policemen, just as Kenya's anti-corruption commission has generally gone after fairly small fry. It has a higher conviction rate than IPOA, but of the 26 officials convicted in the year to June 2017, nearly half had stolen less than \$100. The commission's former chairman reckons that \$6bn is stolen from the government's budget every year. The recent detention of prominent officials has excited Kenyans. But no politician of note has been charged and cases are often dropped when the media's attention wanes.

Politicians have little interest in ending a system from which they benefit. So it is hardly surprising that Kenya's constitution is not robust enough to stem corruption. "These laws and institutions were not created to actually address the underlying problems," says Patrick Gathara, a com- ▶▶

Ethiopia

Abiymania

ADDIS ABABA

Ethiopians are going wild for their new prime minister

SEMAHEGN GESHAJE has peddled books near the national theatre in Addis Ababa for eight years. But business has rarely been this brisk. “Anything that’s about Abiy Ahmed is popular,” he says. A flurry of titles about Ethiopia’s new prime minister has hit the shelves since he took office in April. One best-seller, called “Moses”, compares Mr Abiy to the prophet. Another professes to be an insider account of his meteoric rise. The two most popular were written under a pseudonym by the prime minister himself. The last copies of “The Stirrup and the Throne”, his meditation on leadership, sold out in the capital weeks ago. “We badly need that book,” grumbles a bookshop owner. “People are always bothering us for it.”



Mr Abiy, parting the waters

More than 90% of those surveyed by WAAS International, a local research firm, have a favourable view of Mr Abiy, who has released thousands of political prisoners and apologised for police brutality. But a visitor to the capital could be forgiven for thinking the number is even higher. Songs with titles like “He Awakens Us” ring out on the airwaves. Street boys hawk stickers, posters and T-shirts featuring Mr Abiy. Addis Gebremichael, who runs a corner shop near the central square, says he sold 1,500 such shirts in a single day when a big rally was staged for Mr Abiy in June.

Abiymania is also infecting Eritrea, with which Mr Abiy has just made peace. Eritrean women promise to name their first-born sons after him. A clothes shop in Asmara, the capital, has dedicated a fashion line to him. Some Christians believe he was sent by God. His name alludes to the Easter fasting season, they note, and he rose to power during Lent.

Ethiopia’s state media behave slavishly towards the prime minister, obsessively covering his appearances and seldom airing critical views. Mr Abiy himself never gives interviews and has yet to hold a press conference. Non-state outlets complain that they are no longer invited to official press briefings.

But there are signs that Mr Abiy’s honeymoon is ending. At the rally in June an attempt was made on his life. This month federal troops clashed with local security forces in Ethiopia’s Somali region, triggering tit-for-tat killings and displacing thousands. Graffiti reading “Fuck Abiy” were later seen in the regional capital. Ethnic violence has recently escalated in his own region of Oromia. The government’s response has been feeble. Mr Abiy may be human after all.

mentator. “They’re there for show.”

There has been one exception. Kenya’s judiciary was once known for its pliancy and crookedness. But in recent years it has shown its mettle. Last year the Supreme Court overturned Mr Kenyatta’s election and ordered a rerun. The ruling emboldened other judges, who have struck down bad laws.

A purge of corrupt judges 15 years ago, less presidential involvement in appointments to senior courts and doggedly independent chief justices are some of the reasons for this improvement. But, having made enemies in government, the courts face pressure too. Their budgets have been

slashed and judges have been intimidated.

Kenya’s government is gaining the upper hand over those who might hold it to account. But there has been little pushback from the public. The killing of protesters—hardly covered by Kenya’s once independent media—is welcomed by many in the middle class, who fear instability will undermine the economy. The murder of criminal suspects is similarly applauded. Judges who challenge the government are dismissed as partisan and frequently vilified. “Our rulers are getting away with what they want because we are letting them,” says a lawyer. “We are getting the government we deserve.” ■



Togo’s president

Tough to unseat

LOMÉ

A year after protesters nearly toppled him, Faure Gnassingbé clings to power

TWO weeks ago sword-wielding soldiers flanked the red carpet as the leaders of the Economic Community of West African States (ECOWAS) filed into a fancy hotel in Lomé, the capital of Togo, for a two-day summit. Gendarmes closed off a chunk of the city. Traders in the market griped about a slowdown in business. The streets fell silent.

Last September those same streets were packed with thousands of protesters calling for the president, Faure Gnassingbé, to step down after 13 years in power. (His father, Gnassingbé Eyadéma, led Togo for 38 years before that.) The country was in turmoil. Ultimately, the government offered concessions, including a promise to hold a referendum on presidential term limits. Mr Gnassingbé’s departure seemed possible.

Yet little has changed. Mr Gnassingbé (pictured) is still unpopular, but he clings to power thanks to a crackdown on activists, who have been killed, tortured and imprisoned. Many others have fled.

The opposition was relieved this month when the government, under the threat of more protests, abandoned plans to hold a legislative election. It almost certainly would have been rigged. With a push from ECOWAS, the poll has been rescheduled for December, after reforms are made to the electoral system. But the opposition fears there is too little time—and motivation—to make big changes. The electoral commission and constitutional court, ►►

which must verify the results, are full of government cronies. No one is in a rush to update the voter register.

Left unanswered is the question of what to do about Mr Gnassingbé. Last year he reneged on the promise of a referendum which, if successful, would have introduced a two-term limit for the presidency. Mr Gnassingbé said the rule would not apply retroactively anyway, leaving him eligible for two more terms (he is already in his third). The opposition is adamant that he should not be on the ballot for the next presidential election, in 2020.

Despite the repression, Jean-Pierre Fabre, the leader of the opposition, says his movement is stronger than ever. Support

for regime change has grown in the north, once a government stronghold, thanks to the efforts of Tikpi Atchadam, a charismatic northern politician who has since fled to Ghana. The opposition promises to hold more protests soon.

Last year ECOWAS placed troops on the borders of Gambia and threatened to invade when its former dictator, Yahya Jammeh, tried to hold onto power after losing an election. Togo is more stable. Paul Melly of Chatham House, a British think-tank, says other African leaders regard Mr Gnassingbé as “rational and statesman-like”. But if he does not implement reforms or decides to run for more terms, they may change their opinion. ■

But Mr Macron thinks it will help keep African migrants off French soil.

The EU set a precedent in 2016 when it asked Turkey’s authoritarian president, Recep Tayyip Erdogan, to limit the number of migrants crossing the Mediterranean. He got €6bn in aid and visa-free travel to the EU for some of his citizens. “Arab states saw there was a kind of hysteria, and they knew they could play that card too,” says an official at the European External Action Service, the EU’s diplomatic corps.

In June the Speaker of Egypt’s parliament, Ali Abdel Aal, led a delegation to Brussels. His government holds thousands of political prisoners and is the world’s number-three jailer of journalists. Questioned about this, Mr Abdel Aal offered a laughable defence. Locking up bloggers and activists, he argued, would mean fewer negative stories about Egypt, and thus more tourists. Pressed further, he turned to a familiar argument. Egypt is a country of 97m people just 220 miles from the EU. The threat was obvious: if you thought the Syrian refugee crisis was bad, imagine what would happen if Egypt collapsed.

Such scaremongering is effective. The EU has offered only tepid criticism of Egypt’s army-backed government. Until this summer, none of it was aired publicly. Britain and France have welcomed the president, Abdel-Fattah al-Sisi, for official visits. Even Italy is pursuing closer ties—despite the death in 2016 of an Italian graduate student in Cairo, who was probably killed by the police. “The EU is acting like the junior partner,” complains an Egyptian activist. “Even Trump is tougher on Egypt.”

The conditions that sent millions of Arabs across the Mediterranean still exist. Egypt’s population is young, poor and restless. Militias in Libya today can be just as brutal as Mr Qaddafi’s regime was. And Mr Assad, needless to say, is not a stabilising force. The EU might succeed in sending some refugees home. More will come. ■

Europe and the Arab world

Anything to stop the migrants

BRUSSELS AND CAIRO

European countries are repeating past mistakes in the Arab world

MUCH of Syria lies in ruins, but Bashar al-Assad’s bureaucracy of repression hums along. Earlier this year a pro-opposition website published a list of Syrians wanted by the regime. The database is both staggering in scope—15m people, or 7% of the pre-war population—and incomplete. Jamil Hassan, the head of the air-force intelligence service, is said to have told senior officers in July that he wants to arrest twice that number. On August 9th another regime official announced that 100,000 Syrians have died of “unknown causes” since 2017. Many were tortured to death in Mr Assad’s dungeons. Yet European politicians are debating whether to send refugees back to this bloody oubliette.

Seven years ago, when Arabs revolted against their autocratic rulers, European leaders engaged in a collective mea culpa. Decades of working with dictators had not created a stable, prosperous Arab world. From now on, democracy and human rights would be the cornerstones of the European Union’s Middle East policy, they vowed. But the high-mindedness was short-lived. Driven by a fear of migrants, European governments have once again embraced strongmen.

Without a political transition in Syria, the EU refuses to help the regime rebuild the battle-scorched country. But some member states, eager to see refugees go home, want to do it anyway. Russian diplomats have offered to help repatriate migrants in exchange for construction materials and money, and the proposal is getting some attention in European capitals. “It’s going to be very difficult to keep the consensus on this issue,” admits a diplomat in

Brussels. Politicians from Germany and Denmark have visited regime-held Syria to assess if it is “safe”; the anti-immigrant Alternative for Germany party says it is.

In Libya, where EU members helped overthrow Muammar Qaddafi in 2011, they now work with warlords to round up migrants. Italy has paid off local militias, which hold migrants in abysmal conditions. Torture and rape are common. France’s president, Emmanuel Macron, wants Libya’s feuding factions to hold elections in December. He claims it will stabilise the country. It is more likely to shatter a fragile UN-backed transition and boost Khalifa Haftar, the strongman who rules the east. The EU’s own election observers say the vote will be too unsafe to monitor.



Quick, put a strongman in their way

The Gulf crisis

Competition over Kabul

CAIRO

Gulf states are vying for a role in America's longest war

NEXT month the American war in Afghanistan will pass a surreal milestone. The army will begin recruiting soldiers who were not yet alive during the attacks of September 11th that led to the invasion. For most Americans, the conflict is all but forgotten. Not so for America's closest allies in the Middle East, who have suddenly taken a fresh interest in it. The Gulf monarchies are sending more troops and vying for a role in peace talks. But their involvement probably says more about their own internal squabbles than about Afghanistan's future.

Before this summer's NATO summit in Brussels, both Qatar and the United Arab Emirates (UAE) offered to send troops to train the Afghan army. The UAE, which already had 200 men in Afghanistan, will increase that by nearly a third. (Qatar's contribution is unclear.) The numbers are trivial. The extra Emiratis will increase the total NATO-led training mission by about 0.4%. Still, even a symbolic contribution might carry weight with America's transactional and temperamental president.

The Gulf states have been vying for Donald Trump's attention since last June, when three of them—Saudi Arabia, Bahrain and the UAE—imposed an embargo on Qatar over its contrarian stances. At first Mr Trump supported the blockade. Then a series of Saudi missteps, such as detaining Lebanon's prime minister, made the Americans nervous. The administration is now more neutral. All four Gulf states are trying to curry favour, signing big arms deals with America and spending millions on Washington lobbyists. Afghanistan is the latest arena for this contest.

After years of negotiations, the Taliban opened a diplomatic office in Doha in 2013. It got off to a shambolic start. The group had promised not to fly its white flag or call itself the "Islamic Emirate of Afghanistan", the name it used when it ruled the country. It did both and within days the office was temporarily closed. Qatar's rivals cited the Taliban's presence in Doha to justify the blockade. Yousef al-Otaiba, the UAE's ambassador in Washington, said the office was an example of how Qatar "funds, supports and enables extremists".

Years earlier, though, the Emiratis vied to host that same office. And despite the troubled start, it has become a vital conduit for negotiations. Last year a pair of retired American officials began shuttling to Doha for informal talks. Their effort came to fru-

Art in Egypt

Busted

CAIRO

As the police lock up artists, the state commits crimes against good taste

KHEDIVE ISMAIL looms large in Egyptian history. During his 16-year rule the 19th-century Ottoman pasha modernised the country, laying down railways and irrigation canals that remain in use today. A statue of him towers over a square in Ismailia, the city that bears his name. When the current governor ordered workers to spruce up Ismailia, they naturally repainted the sculpture. But they did so with gaudy coats of black and silver. Even his eyes got an eerie metallic glow. The great pasha now looks like a character from a low-budget cartoon.

Egyptians are proud of their rich culture. Statues and reliefs carved in antiquity draw millions of tourists. In the 20th century Egypt produced cultural icons like Naguib Mahfouz, a Nobel-

prizewinning author, and Umm Kulthum, a celebrated singer. After the revolution of 2011 a new crop of artists took their work to the masses. Theatre troupes performed in public squares and colourful murals went up across Cairo.

But the army-backed government that seized power in 2013 views art, like all free expression, as a threat. Since February police have jailed at least a dozen artists, according to Human Rights Watch, a pressure group. A poet was sentenced to three years in prison for a book that has not even been published. A director and playwright received suspended sentences for an "unauthorised" performance. Though ostensibly secular, the government also enforces stifling morality laws. A belly-dancer was detained in February for exposing too much flesh.

That leaves Egypt's bumbling bureaucrats to play culture commissars, with predictable results. In 2015 the leaders of Samalut, 200km south of Cairo, wanted to install a statue at the city gates. They commissioned a replica of one of Egypt's best-known works: the striking bust of Nefertiti carved in 1345BC, her slender features topped by an imposing blue crown. The replica was grotesque. Instead of a healthy reddish glow, the queen's skin was a sickly yellow, her eyes closed and her face blemished.

Mockery is not (yet) illegal. Egyptians compared the Nefertiti statue to Frankenstein's monster. When a statue of Umm Kulthum (pictured) was painted in 2016, many said she looked like Princess Fiona, a cartoon ogre from the movie "Shrek". The Nefertiti statue came down and Umm Kulthum has been restored. But more ugly art, commissioned by the government, remains on display.



She sings so high that birds explode

ition last month when America's top envoy for South Asia met Taliban members in Doha, the first such meeting in years.

The Saudis have their own history with the Taliban. They helped to arm the Afghan *mujahideen* in the 1980s, and their government was one of the few to recognise Taliban rule. In recent months they have tried both to delegitimise the group and to win its trust. The imam of Mecca's grand mosque called the Afghan conflict a *fitna*, a religious term for pointless strife between Muslims. Weeks later the Saudi-based Organisation of Islamic Co-operation held a peace conference with clerics from dozens of countries. At the same time, Saudi officials have reached out to splinter

groups within the Taliban, which has become more divided since the death in 2013 of its longtime leader, Mullah Omar.

Qatar, unsurprisingly, calls the Saudi effort a distraction. The Doha office "is still the only platform for talks", says an official. The Afghan government is more enthusiastic. It is nervous about America talking directly with its foe and hopes Saudi-led negotiations will give it a seat at the table. In March the Afghan national-security adviser, Hanif Atmar, said the kingdom was "best placed" to host a peace process. American diplomats dismiss all this as slightly absurd: if the Gulf states cannot even resolve their own dispute, how will they help end a 17-year war? ■



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The fall of the lira

Turkey tantrum

ISTANBUL

Currency turmoil and a row with America threaten to spill out of control

ANDREW BRUNSON may be the world's most expensive prisoner. It has been just two weeks since America first applied sanctions against the Turkish officials responsible for the pastor's detention. Since then, Turkey's refusal to release him has helped to wipe about \$40bn off its stock-market, slash the value of its currency by about a fifth and bring the country to the brink of a major debt crisis. The government of President Recep Tayyip Erdoğan is widely believed to have kept Mr Brunson behind bars on terror charges since 2016 in the hope of extracting concessions from Washington. But it is Turkey which has ended up paying the price.

Mr Erdoğan appears to have no intention of undoing the damage. Turkey's combustible leader has not only refused to repair relations with America, he has raised the stakes. On August 15th, less than a week after America's equally impulsive president, Donald Trump, doubled tariffs on Turkish steel and aluminium products, Mr Erdoğan called for a boycott of electronic goods from America. The following day he imposed tariff increases of up to 140% on American products including cars, tobacco, cosmetics and alcohol.

Predictably, Mr Erdoğan blames outside forces for the lira's collapse. "These are bullets, cannonballs and missiles of an economic war waged against our country," he said in one speech, referring to dollars, euros and gold. In another, he warned that

America risked "trading a NATO partner for a priest".

Mr Trump has already signed a bill to delay the delivery of American F-35 jets to Turkey in response to its purchase of a missile-defence system from Russia. A White House official said on August 14th that new sanctions were in the pipeline. The next day a Turkish court ruled that Mr Brunson should be kept under house arrest.

What Turkey needs to do to save the lira and repair the economy seems clear enough. Mr Erdoğan must work out his differences with America, allow the central bank to raise interest rates sharply and make a number of painful reforms, foreign investors and analysts say. Down the line, it will need to deal with the \$220bn in for-

eign-currency debt that is weighing down the corporate sector.

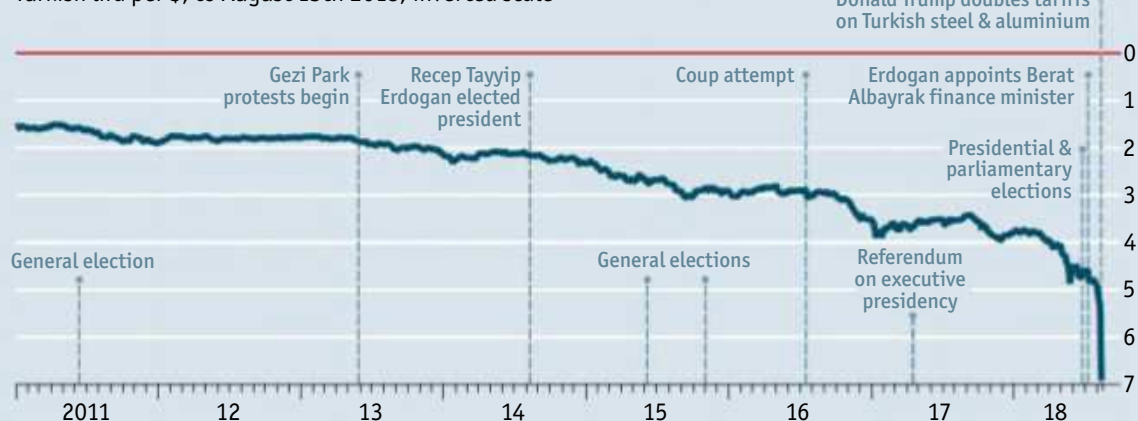
Having racked up dollar loans they can no longer service because of the collapse of the lira, many Turkish companies face bankruptcy, especially ones in property, construction and energy, says Refet Gurkaynak, an economist. "The government needs to come up with ways to bail out the healthier ones, and let the ones that are beyond saving die," he says. Unless the government restores confidence, portfolio investors, on whom Turkey relies to finance its current-account deficit, may head for the door, says Timothy Ash of BlueBay Asset Management. That would make it impossible for Turkish banks to roll over billions of dollars in debt.

Payback's the glitch

Mr Erdoğan's government has belatedly taken some steps to stem the lira's plunge, ruling out capital controls and limiting swap transactions to protect the currency against short-selling. The central bank has taken steps to tighten the money supply. The currency has recovered some of its losses, but remains down by nearly 40% ►►

Decline and fall

Turkish lira per \$, to August 13th 2018, inverted scale



Source: Thomson Reuters

▶ against the dollar since the start of the year. It received a major boost on August 15th when Qatar, a regional ally, announced it would invest \$15bn in Turkey.

Economic turmoil was on the cards long before the row with America. For years Mr Erdogan has forced banks to keep interest rates low. Companies gorged on credit, the lira fell (see chart on previous page) and inflation topped 15%. Money poured into construction contracts for cronies and vanity projects like a bridge over the Bosphorus, a vast airport in Istanbul and Mr Erdogan's 1,100-room, \$615m palace in Ankara. As spending boomed, the current-account deficit swelled. "Had it not been for severe mismanagement of the economy, the problem with the US would not have led to this," says Mr Gurkaynak. "This is a home-made crisis."

Yet many Turks believe foreigners are to blame. Over the past decade, Mr Erdogan

has grown increasingly authoritarian, repressing anti-government protests, extending his power over all branches of government and responding to a failed coup in 2016 with purges and mass arrests. Using intimidation and buy-outs by pro-government tycoons, he has gained almost total control of the press. Few Turks see any account of the lira's fall other than the government line. Mr Trump may have done Mr Erdogan a favour by making it easier for him to pin the blame on the West.

The Turkish president has threatened to retaliate by seeking "new alliances". Despite its grumbling, Turkey is embedded in NATO, whose member states furnish most of its arms. But it could buy more from Russia, and offer it more help (and the Americans more headaches) in Syria. Sergei Lavrov, Russia's foreign minister, was in Istanbul this week. The commitment from Qatar shows Mr Erdogan is serious about

finding new sponsors. His ministers have talked up possible Chinese investments.

But Turkey's biggest trading partner remains the European Union. Curiously, relations with Europe have been improving. Angela Merkel has struck a soothing tone, insisting on Europe's desire for a prosperous Turkey. Turkish-German tensions have eased this year, as the Turks have quietly released all but a few of the German citizens they detained after the failed coup.

That example holds a little hope for Mr Brunson. Mr Erdogan has backed out of conflicts before, notably in 2016, after Turkey's downing of a Russian jet brought the two countries to the brink of war. Mr Trump, too, has picked fights with antagonists like North Korea's Kim Jong Un, only to embrace them after minor concessions. Unfortunately, the interests of 80m Turks are currently held hostage to an ego contest between two blustering populists. ■

Russia's neighbourhood

Big lake, small sea

MOSCOW

What is the Caspian, anyway?

NAMES can be misleading. Take the Caspian Sea. It is actually the world's largest body of inland water—or what some would call a rather salty lake. The confusion has fuelled disputes over its legal status for nearly 30 years, as lakes and seas fall under different international legal regimes.

The Caspian sits at a strategic spot between Europe and Asia, and contains lucrative stores of oil, gas and fish, including the caviar-producing sturgeon. The Soviet Union and Iran had a clearly defined maritime border but, after the Soviet collapse, the appearance of independent Azerbaijan, Kazakhstan and Turkmenistan muddled the waters.

On August 12th the five littoral countries at last signed an agreement. The Caspian, says a Russian official, is to be treated as neither sea nor lake, but instead subject to a "special legal status". While leaving some of the thorniest issues unresolved, the pact clarifies the maritime borders, enabling new oil, gas and pipeline projects to go ahead.

All five countries are to have 15 mile-wide territorial waters extending from their shores and another ten miles of exclusive fishing rights. The rest of the surface water will be common territory, but non-signatory states may not deploy armed forces there. For Russia, this helps preserve its military dominance by retaining freedom of movement for its warships. (Russia has used the Caspian to launch missiles into Syria.)

The seabed and its resources, mean-

while, will be divided separately between the signatories. Russia, Kazakhstan and Azerbaijan already have agreements that split up the northern Caspian. Carving up the rest of the seabed will require further negotiations. The agreement also allows pipelines to be constructed with the consent only of the countries whose sectors they pass through. That might unblock a much-discussed Trans-Caspian Pipeline from Turkmenistan to Azerbaijan which Russia has long opposed.

The convention is the fruit of many years of negotiations. One factor that may have pushed it over the edge is Moscow's co-operation with Tehran in Syria. Another is America's resumption of sanctions on Iran, which pushes that country to seek co-operation elsewhere. Call it serendipity.



Ireland and Brexit

Ferry risky

DUBLIN

Brexit could mean chaos for Irish trade

VISITORS to Ireland can raise eyebrows by referring to Britain as "the mainland". Yet the ferries that connect the two islands are the Republic's main surface lifeline. Not only does Britain account for 12% of Ireland's external trade in goods, but the "land bridge" via the Channel Tunnel is the quickest route for lorries between Ireland and the rest of the European Union. The continental EU, representing 38% of trade in goods, is Ireland's biggest market.

Lorries can drive onto a ferry from Dublin or Rosslare to Britain at 9am and be in Paris by midnight, says Verona Murphy, president of the Irish Road Haulage Association. Direct ferries to the continent, from Rosslare to Roscoff or Cherbourg in France, take at least 17 hours for the crossing alone. They also cost more: about €1,000, compared with €540 for the Irish Sea and Channel Tunnel crossing.

But if Britain leaves the EU next year without an agreement on trade, customs, immigration and food safety, it would mean reintroducing physical controls on trade from Ireland. That would make the British route much slower and more expensive, and could rule it out for Irish "just-in-time" trade.

Ms Murphy's own firm is a perfect example. It operates four refrigerated trucks that bring Irish meat to Italy and return with fresh herbs. "From the time the herbs come out of the ground to the supermarket shelf in Ireland it takes about five days, and you are then left with a shelf-life of three to ▶▶

► five days,” she says. Making the trip longer reduces the shelf life. Beyond a certain point, it could render the whole enterprise unprofitable.

The Irish government is already wrestling with Brexit’s implications for its border with Northern Ireland. It recently commissioned an urgent study of EU trade via the British route, in case Brexit disrupts that too. The figures are inexact because such traffic is not closely monitored, but the Irish Road Haulage Association thinks more than 80% of road freight to and from the continent passes through Britain. All of this would be subject to the miles-long queues at Channel ports which British civil servants have warned Brexit could cause.

For some, post-Brexit disruption would bring opportunities. CLdN, a Luxembourg-based shipping company, recently introduced the world’s two largest roll-on roll-off ferries on a new 36-hour route between Dublin, Zeebrugge and Rotterdam, bypassing both Britain and France. The port of Cork has launched a ferry service between Ireland and Spain, and Irish Ferries plans to introduce direct routes between Dublin and Cherbourg.

On August 1st the European Commission agreed to reroute a proposed transport corridor from the continent to Ireland away from British ports. Instead it will involve direct ferries from Belgium and the Netherlands. This would mean less business not just for British but for French ports, putting them out of the running for billions of euros in EU grants for infrastructure upgrades. French ports, predictably, oppose the plan.

Martina Lawless, an economist with Ireland’s state-sponsored Economic and Social Research Institute, says business and government will be unwilling to invest in new warehousing or port expansion unless there is a clear need. But if a “no deal” Brexit still seems possible after the next EU summit in October, it could trigger a sudden wave of emergency planning. The Irish government, unlike the British, is not yet talking about stockpiling food for its citizens. But with Irish supply chains so closely linked to Britain, the possibility of chaos is just as high. ■



Italy's bridge disaster

Structural weakness

ROME

A deadly collapse reveals cracks in both infrastructure and government

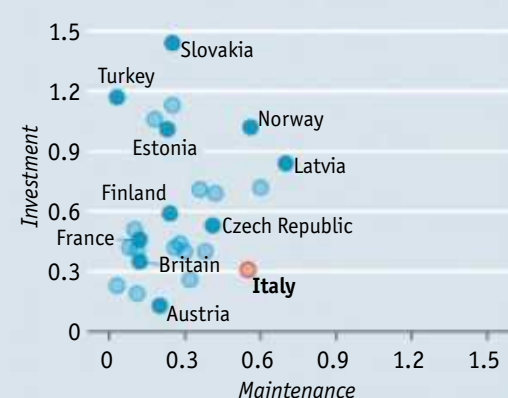
IT WAS the stuff of motorists’ nightmares: on August 14th, a pillar supporting a bridge over the Polcevera river in Genoa collapsed. Three heavy vehicles and up to 35 cars plunged 45 metres from the A10 motorway into the river bed and onto nearby warehouses. As *The Economist* went to press, 38 people were known to have died; the search for survivors was suspended for fear of further collapse.

Why did it happen? Like many bridges in Europe and America, this one was old: it dated from 1967. It had been stressed by ever-heavier vehicle loads. That day, it was battered by a storm and struck by lightning. But none of that explains its collapse. One theory, advanced by Antonio Brenich, a lecturer at the University of Genoa, is that the bridge was innately flawed. It was of unusual construction: its designer, Riccardo Morandi, encased the stays holding up the deck in concrete. Only two other bridges—in Libya and Venezuela—were built in that way, both by Mr Morandi. The one in Venezuela collapsed, after being hit by a ship. The Libyan one was closed after inspectors found cracks last year.

Italy’s populist government found others to blame. Three other bridges have collapsed in Italy with less publicity in the past three years, and the interior minister, Matteo Salvini of the Northern League, claimed the European Union’s budget-deficit limits had restricted Italy’s spending on infrastructure. But figures suggest it may actually spend too much on patching up its infrastructure, and not enough on renew-

Construction ahead

Spending on roads*, % of GDP, 2015



Source: OECD

*Public and private

ing it (see chart). Then Mr Salvini accused the franchise holders of the motorway, Autostrade per l'Italia, of failing to maintain the bridge. Sweeping aside the firm’s denials, the infrastructure minister, Danilo Toninelli of the Five Star Movement (M5S), announced he would revoke the company’s franchises and fine it up to €150m.

That helped deflect attention from a deep crack in the coalition: the M5S, which has a history of NIMBY-ism, has vehemently opposed infrastructure projects the League supports. Indeed, it opposed a bypass that would have relieved traffic on the very bridge that collapsed. At a rally in 2014 the M5S’s founder, Beppe Grillo, denounced the project as a waste of money; on its website, opponents of the scheme ridiculed fears that the bridge would collapse as a “fairy tale”. ■

German problems

Deadly sleepers

BERLIN

German soil is littered with explosives from the second world war

ON APRIL 18th building workers in Berlin found a 500kg American bomb caked in earth. It had been dropped during the second world war into what was then an industrial area, but lodged in the sandy soil rather than exploding. The police ordered some 10,000 people within an 800-metre radius to leave their homes—an evacuation unprecedented in Berlin's recent history. The city's main station was emptied, flight paths overhead changed and the nearby canal closed. Specialists then used high-pressure jets of water and sand to separate the fuse from the bomb. Germany's capital breathed a sigh of relief.

Such dramas—though typically on a smaller scale—are a common feature of the German news. Some 1.5m tonnes of explosive material were dropped on the country during the war, about half of the total that fell on Europe during that period. Somewhere between 7% and 20% of this material did not go off. Today individual bombs and other explosives are often found by gardeners hoeing the earth, farmers ploughing their fields or construction workers laying foundations.

The hot summer has led to spate of new finds, as dried-up rivers and lakes expose once-submerged explosives, and forest fires set off underground bullets and grenades. The current building boom in German cities is also a factor: developers are increasingly redeveloping land and finding unexploded bombs. The building industry is becoming more savvy, says Martin Kötter, a spokesman for the sector. “Developers used to tell their workers: ‘Go and make a hole there.’ Now they tell themselves: ‘If I send my people there and something happens, then I as a business leader am liable.’”

This heightened awareness is complemented by new technologies. Wolfgang Spyra of Cottbus University is using Allied aerial photos taken after raids to identify zones where the risk of unexploded bombs is especially high. Oranienburg, a town north of Berlin heavily targeted because it housed the Nazi nuclear-weapons programme, has thus become the first municipality in Germany to search actively for unexploded ordnance—scanning risky patches of earth for magnetic resonances and cutting the speed limits of the buses travelling through them to reduce the risk of detonations.

When an explosive is found, authorities urge the finder not to touch it. (On Au-

Spain

The Guggenheim effect

BILBAO

Can Bilbao's cultural-tourism success be replicated?

NOT long after it opened in 1997, the Guggenheim museum in Bilbao became a case study in urbanism, credited with transforming a declining industrial city into a sleek tourist destination. Few people know more about the “Guggenheim effect” than Miguel Zugaza, both then and now the director of the nearby Bilbao Fine Arts museum. Previously obscure, despite its splendid collection of Spanish masters, his museum now gets twice the 150,000 visitors a year it received in 2002, when he went off for a long and successful stint managing the Prado in Madrid.

Many other cities around the world have strived to replicate the Guggenheim effect, rarely with success. Spanish towns, in particular, are littered with expensive white elephants, designed by starchitects during the pre-crisis construction boom. They include the recently opened Iberian museum in Jaén and the City of Culture in Santiago de Compostela, which resembles a ski-jump designed by a drunk.

Yet amid the dross, there is gold. Several cities are following Bilbao's path. Madrid, not long ago a sleepy town of bureaucrats, is now one of Europe's cultural capitals. Perhaps the most striking example is Malaga. Once skirted by tourists on their way to the Costa del Sol, it now has a cluster of art museums. They

include outposts of the Russian state museum and Paris's Pompidou Centre as well as a museum devoted to Picasso, who was born there. Hotel stays in Malaga were up 9% last year.

Valencia splurged more than €1.3bn (\$1.5bn) on the City of Arts and Sciences, a complex of fantasy buildings comprising an opera house, an aquarium and several museums. Tourism to the city is growing fast. In Santander, along the coast from Bilbao, the Centro Botín, a contemporary arts centre, opened last year in a dramatic building designed by Renzo Piano and suspended over the sea. Two more museums are under development in the city. This is helping to generate “a cultural map” in northern Spain, says Mr Zugaza.

It is also contributing to healthy economic diversification. After booming in recent years, Spain's beach tourism appears to be levelling off. The proportion of foreign tourists who are mostly there for the culture is still only 15%, but the number is rising fast—from 8m to 12.9m in 2012-17, according to official statistics.

“We Spaniards are very critical of what we've done,” says Mr Zugaza. “But there's a new dynamism in our cities. We have an extraordinary cultural patrimony.” Not every city can be a hub for the arts, but the effort to become one is bringing a buzz to many.



Valencia's fully operational opera station

gust 9th a young father in Mönchengladbach horrified the fire brigade by turning up with a bomb, found in his garden, in a cardboard box.) Experts determine whether the fuse can be removed safely, or whether the bomb is on a timer that could be restarted by movement. That sort is often blown up, as disarming it is too risky. All cases can involve evacuations; police officers remove residents by force if neces-

sary. (Many say “I don't mind, I'll stay at home,” says Jörg Majowski of the Berlin police.)

Even with such precautions, dangers arise. Mr Kötter recalls how three experts were killed in Göttingen in 2010 when a timer-based bomb went off before they could disarm it. But most buried devices are harmless unless unearthed, he says: “They just slumber on in the ground.” ■

Charlemagne | Odyssey without end

Our departing Europe columnist offers some reflections from a Greek outpost



KASTELLORIZO is “the end of Europe—or perhaps its beginning”. So says Yannis Doulgaroglou, co-owner of the Hotel Kastellorizo, a sunny inn on Greece’s easternmost inhabited island. A tiny rocky outpost just off the Anatolian coast, on maps of Greece Kastellorizo is often relegated to an inset. Yet it was from the island’s picturesque harbour, on April 23rd 2010, that George Papandreou, the prime minister, stared blankly into a camera and acknowledged that his troubled country had lost access to capital markets and needed a financial rescue package from its euro-zone peers. The day is etched in the memory of most Greeks. Chuckling, Mr Doulgaroglou recalls the journalists who scarpered from his hotel once they realised the prime minister was saying something momentous, leaving behind their unpaid bills.

Eight years and three bail-outs later, as Greece prepares to leave its final programme on August 20th, Mr Papandreou’s remarks seem laden with pathos. He directed his ire at the “speculators” who had sent Greek bond yields soaring, more than at the successive governments that had overspent, under-reformed and fiddled the national accounts. Yet, he vowed, with a “common effort” Greece would “reach the port safely, more confident, more righteous and more proud.” He called this the “new Odyssey”.

Odysseus faced great hardships, but his travails culminated in a happy homecoming. After so many years of servitude, it would be nice to think that Greece’s journey will reach a similar conclusion. There are indeed signs of recovery, led by strong tourist numbers on islands like Kastellorizo. Growth has returned, albeit in nugatory form. But the scars are everywhere. It is now not unusual to see a dozen men shooting up in broad daylight in the middle of a central Athens street. As Greeks know only too well, after the emigration of hundreds of thousands and a near-25% drop in GDP since 2008—almost half as much again as war-torn Ukraine—no one can mistake their country for a success story. Mr Papandreou’s predictions were precisely wrong. That is the lesson of Greece’s eight years of pain, and one that offers this columnist, shedding Charlemagne’s robes for a new posting after four years, a chance for some parting thoughts.

A good case to be made for the tedious procedures of the European Union is that they transmute inflammatory political arguments into technical matters to be smoothed away by any-

mous, apolitical bureaucrats. Where countries once fought over resources or territory, their membership of a club with a common rulebook channels disputes into lengthy negotiations that result in communiqués nobody reads. Deathly dull, and perhaps a trifle undemocratic. But better than what came before.

Yet there is something self-serving about this narrative. Greece created its own problems, but was largely a bystander while “solutions” were imposed by others. The rules of its bail-outs reflected the installation-by-stealth of austerity as official euro-zone dogma. And it was the victim of bad policy as well as power politics. Other governments regularly promised Greece jam tomorrow in exchange for hardship today. But projections for its recovery consistently proved wildly optimistic, as the austerity visited on the country, wholly predictably, deepened its recession and made its debts ever more unpayable. It was the most ruinous way imaginable to make a point. Now Greece, left with threadbare public services, eye-watering tax rates, weak institutions and appalling demographics, is supposed to run large primary surpluses (ie, before interest payments) for the next four decades.

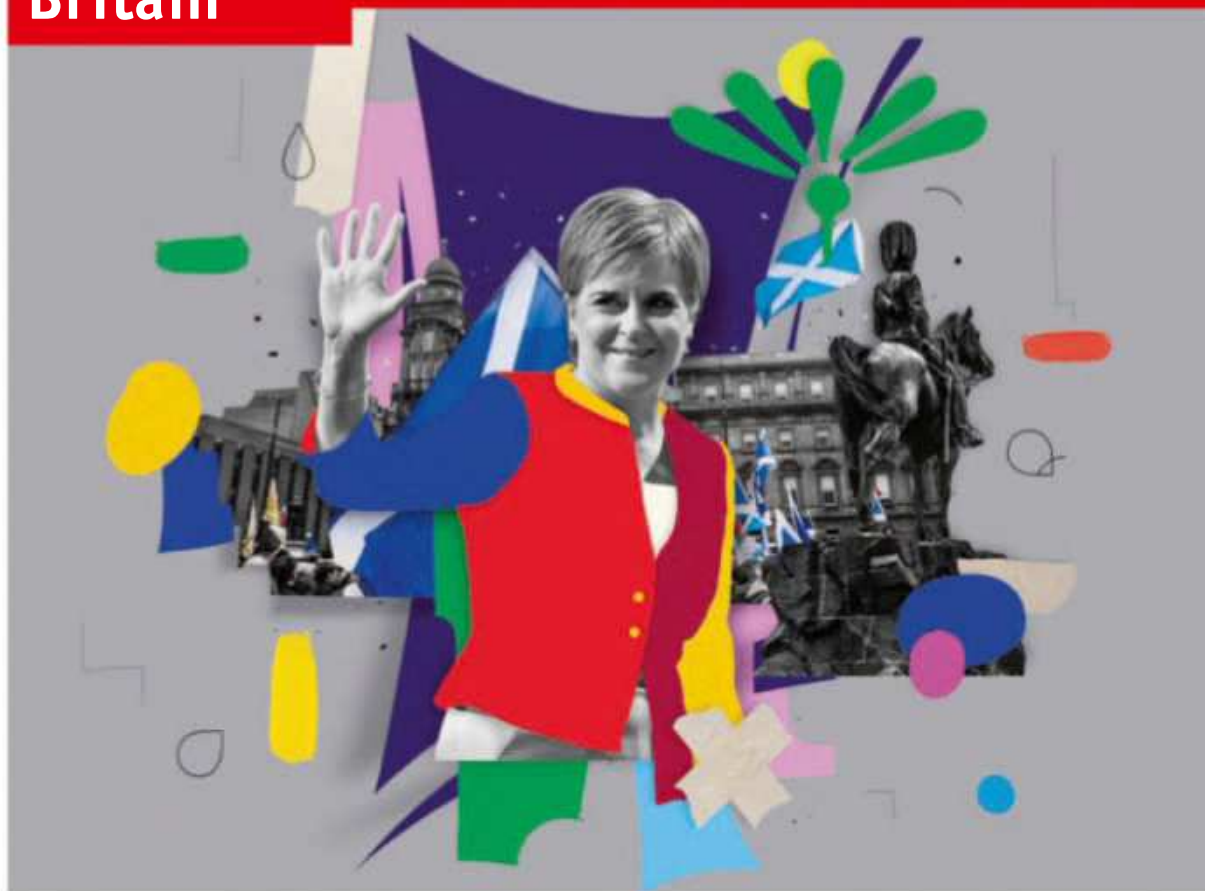
This is magical thinking masquerading as policy. Too often in today’s Europe, acute problems are not dissolved by silvery diplomats but rather transformed into chronic ailments that remain bearable, until they are not. True, banking reforms and institutional changes have made the euro zone more resilient. That was why Syriza, an amateurish bloc of ex-communists and elbow-patched professors elevated to power by desperate voters in 2015, saw its own brand of anti-austerity magical thinking quickly squashed. (The collateral damage was capital controls that have not yet, as Kastellorizo’s hoteliers and builders grumble, been fully lifted.) Greece turned out to have a simple choice: a devastating Grexit, or capitulation to the punishing terms its creditors required to keep it inside the euro.

But the euro zone’s failure to collapse bred complacency. In the past six months, amid unusually benign political and economic conditions, governments have failed to muster the will to build up the euro zone’s defences against the next shock. Nor have they used the space afforded by smaller numbers of Mediterranean crossings to produce a long-term asylum strategy, indulging instead in pointless squabbles over quotas. The sticking-plaster solutions in Turkey and Libya cannot last for ever.

These issues bubble away for years, corroding trust within, and between, countries. Odd as it may seem, governments are taking the easy way out. It is simpler to squabble and delay than to break taboos, like writing down Greek debt or forging a unified asylum policy. One lesson, then, of Greece’s crisis is that the single currency is harder to fracture than critics predicted. Another is that the EU will go to considerable lengths, including the impoverishment of its own members, to avoid taking hard decisions.

Wobbly but still upright

The EU’s ability to defer hard decisions—the legendary fudge—once testified to its resilience, or at least its ability to manage disagreements. But in a more unpredictable world, where Europe is battling instability from outside its borders and populism within, it risks becoming a liability. Alternative models, from Chinese state capitalism to Russia’s resentful nationalism, are available, and gaining adherents where voters are losing faith in the European model. You feel this especially strongly on Kastellorizo, just 20 minutes from Recep Tayyip Erdogan’s authoritarian Turkey. But the warning should resonate across the continent. ■



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Scottish public policy

The not so brave

EDINBURGH

Under Nicola Sturgeon, the Scottish National Party was meant to be a reforming force. Things have not exactly gone to plan

IN HER opening policy meeting as Scotland's first minister in 2014, Nicola Sturgeon left no doubt of her priority: education. Falling standards, clear from international surveys and the government's own tests, would no longer be tolerated. In the run-up to the 2016 Scottish parliamentary election, she asked voters to judge her on whether she had improved schools and closed the gap between rich and poor pupils. "If you're not, as first minister, prepared to put your neck on the line over the education of our children, then what are you prepared [to do]?" she asked.

It was a change of tone for the Scottish National Party (SNP). Under Alex Salmond, who was first minister in 2007-14 and is now a host on RT, a Russian TV channel, the party showed scant interest in public-service reform. But after losing the independence referendum in 2014, the SNP realised there was little appetite for a second vote. It needed more to show for almost a decade in power. As health secretary under Mr Salmond, Ms Sturgeon had gained a reputation among policy wonks as an excellent manager. She seemed just the person to show that the SNP could govern, and in doing so make clear what an independent Scotland might be like.

Pro-independence types have long insisted that Scotland would have more in common with Scandinavia if it were not joined with England. Indeed, some of Ms

Sturgeon's most eye-catching ideas point in this direction. Her government is running a (small) universal basic-income trial and plans a national investment bank to support industry. Since last year it has copied Finland in giving the parents of every new baby a free box containing clothes, an ear thermometer and books, among other treats. It is also guiding through a few reforms introduced at the end of Mr Salmond's time, including an expansion of free child care.

Beyond the weans

Elsewhere the government has combined this approach with a degree of technocratic competence often lacking in Westminster. It has, for instance, softened the introduction of universal credit, which replaces six existing benefits, by allowing more flexibility in its delivery. The government also plans to lock up fewer criminals by removing the presumption of prison for sentences of less than a year.

But the party's spending priorities do not speak of a transformational government. Since the SNP came to power in 2007, Scotland has continued to spend a quarter more per person on devolved public services than England. Over the past decade, relative to England, spending on universities (in the form of free tuition) and the police has grown, while spending on health care and schools has fallen.

There has been no big change of direction since Ms Sturgeon became first minister, says Jim Gallagher of Oxford University. Despite gaining new powers last year, the government has made only minor tweaks to the tax system.

More radical supporters of independence chastise the SNP for its cautious "managerialism". Its leadership has become more sensible, abandoning some of its previous wilder promises about what independence would mean for Scotland's economy. Yet sensible thinking does not inspire activists, especially given new competition south of the border. As Gerry Hassan, an academic, has written, "the politics of imagining a different kind of state—and indeed a different kind of society and future—have been (however imperfectly) captured by the advent of the Corbyn Labour Party."

Since losing its majority in the 2016 election, the SNP has passed few significant pieces of legislation. After a long delay the government announced in June that it would shelve its flagship education bill, which had been due to transfer power from local councils to head teachers, and to change the working of the teachers' professional body. The SNP insists that powers can still be transferred without legislation under an informal agreement with local councils. Others are more doubtful. It is "unimaginable" that Labour and Tory local authorities will ever do the government's bidding, even with the threat of future legislation, says Lindsay Paterson, an education specialist at the University of Edinburgh.

In this case, the problem was not parliamentary arithmetic. Liz Smith, the Tory shadow education secretary in Holyrood, says she would have been open to working with the SNP to deliver the bill with ►►

some modifications. Instead, opposition came from the trade unions and local authorities. The historic power of professional bodies in Scotland helps explain the rarity of structural reforms, says Mr Paterson. Despite falling standards, there is little parental clamour for big change. This hints at a degree of conservatism in Scottish political culture that exists alongside its progressive instincts.

There is also strong opposition to the further centralisation of power under the SNP. The government has struggled to introduce a “named person scheme”, which would give every child a representative (such as a teacher or midwife) to whom they or their parents could turn for support. Opposition parties characterise it as an example of SNP overreach, this time into family life. The party also had to retreat from plans to merge four economic-development bodies to create a new “super board”, which one Liberal Democrat MSP labelled a power grab by a central government with “an unhealthy appetite for controlling every aspect of what goes on in this country”.

Other limitations abound. The Scottish government is a small organisation, with limited policymaking ability, and there are few think-tanks to help. Holyrood is set up to encourage parties to work together. And Scotland has little choice but to wait and see what emerges from the Westminster government’s Brexit negotiations, on which Ms Sturgeon complains loudly about not being consulted.

The SNP’s difficulties should not be overstated. Many in Edinburgh speak in hushed tones of the party’s invulnerability, and it remains well ahead in the polls. But the slow pace of change could eventually become a hindrance. Despite Ms Sturgeon’s promises, there is little sign of any improvement in educational outcomes. At the general election in 2017 the SNP had to defend itself against attacks for its lack of domestic reform. The longer the party remains in power the more difficult it is to rebut such arguments. Dreams of a tartan Denmark have yet to come to fruition. ■



Sterling's slide

Crunch time

As Brexit day nears, sterling may be in for a rocky ride

IN THE weeks following the Brexit referendum in June 2016 the pound gyrated wildly, losing 10% of its value. After a period of calm, sterling is looking shaky again. On a trade-weighted basis it has lost 5% of its value since April. On August 10th it fell below \$1.28 for the first time in a year. Further depreciation looks likely, given uncertainty over the government’s Brexit plans.

The prospect of leaving the European Union has depressed sterling’s value because it will damage the economy. Slower growth will call for looser monetary policy. As returns on sterling-denominated assets fall, fewer traders will want to hold them. Of 140-odd currencies tracked by Bloomberg, a data provider, sterling has depreciated against more than 120 since the referendum (see chart). The Venezuelan bolívar and the Turkish lira are among a mere handful of currencies not to have gained in value against the pound.

Brexiters argue that sterling’s tumble delivers great benefits. A cheaper pound makes Britain’s wares more competitive in foreign markets. Since the referendum exports have risen by 7% in real terms. Yet this owes more to a general pick-up in global trade than to greater currency competitiveness. Over the same period, the average G7 country has seen stronger export growth than Britain has.

Against these uncertain benefits, the drawbacks are clear. A weak pound has pushed up the cost of imports. Half of Britain’s food is bought from overseas. Infla-

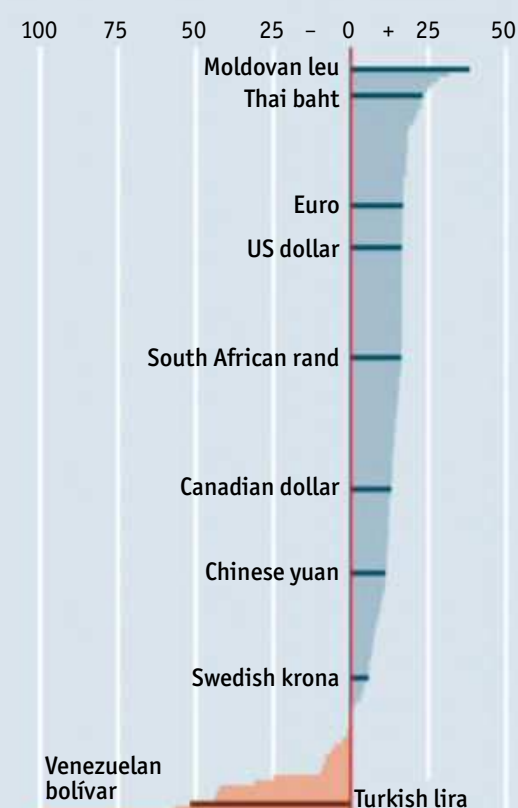
tion has been above the Bank of England’s 2% target since early 2017. In real terms the average pay packet has not grown at all in the past two years. The purchasing power of most working-age benefits, which are frozen in cash terms until 2020, is falling.

Why is sterling sliding again? It has become obvious that the economy is stuck in the slow lane. The IMF thinks GDP will grow by just 1.4% in 2018, below growth rates in both America and the euro zone. The Bank of England raised interest rates on August 2nd, from 0.5% to 0.75%, increasing returns for those holding British assets; but another rise looks unlikely for a while. Traders also fret about Britain’s large current-account deficit, a measure of how much the country is borrowing from abroad. Lately Britain has become increasingly reliant on short-term foreign borrowing, rather than long-term foreign investment, to cover the deficit. If investors sour on the British economy they could quickly pull out their money, prompting the pound’s value to fall further.

The most important factor, however, is the worry that Britain may crash out of the EU with no deal at all. That could tip the economy into recession. Samuel Tombs of Pantheon Macroeconomics, a consultancy, reckons that, in the event of a no-deal Brexit, sterling would drop to \$1.15, its lowest level in three decades. Reaching a sensible agreement with the EU would, of course, give sterling a boost. But most investors appear pessimistic. For the first time in a year, data from futures markets suggest that a majority believe that sterling is likely to decline. More hard pounding could be on the way. ■

Brexit means Brexit

Currencies against sterling, % change since EU referendum, June 23rd 2016 - August 13th 2018



Source: Bloomberg

Bagehot | The other Britain

A depressing number of Britons are struggling to keep their heads above water



THE first thing Theresa May did on becoming prime minister in July 2016 was deliver a speech promising to help the just-about-managing. Since then she has done almost nothing to make good on that promise. Brexit has consumed her attention. Bold initiatives have mouldered on her desk. Life for the JAMS is more of a struggle than ever.

A good place to see this is Birkenhead, next door to Liverpool, not least because of its thoughtful local Labour MP, Frank Field. Birkenhead looks like a stronghold of the respectable working class—all neat houses and well-tended gardens. But you do not have to look hard to see that society is fraying. Supermarkets such as Marks & Spencer are upping sticks. Pound stores, gaming emporiums, pawn shops (“We loan cash”) and cheap pubs (“Three pints for £5”) are on the march. Zero-hour contracts are depressingly common.

The JAMS can be tipped over the edge by the smallest things. Your van breaks down and you must come up with a few hundred pounds to fix it. You need a sudden visit to the dentist. In the summer holidays child care is beyond your reach, but you don’t want the kids roaming free. And then there is the dreaded school-uniform problem. Local schools, particularly academies, have taken to asking parents to shell out hundreds of pounds on fancy uniforms and PE kits.

Mr Field has devoted his career to thinking about poverty—particularly the border between the just-about- and the not-managing. His first job before becoming an MP in 1979 was with the Child Poverty Action Group, a charity. At 76 he remains one of Westminster’s workhorses. He chairs both the Work and Pensions Committee and the all-party group on hunger and food poverty. He applies his knowledge to his constituents’ most pressing problems. The Feeding Birkenhead programme, which he set up with the help of a grant from the Department for Education, is a boon to parents struggling in the holidays.

Builders are just finishing work on one of Mr Field’s latest creations, a combination of food bank, advice centre and café dubbed a “citizen’s supermarket”. Members will be able to buy food at a steep discount. Members and non-members can use the café and consult advisers. The supermarket is one of several organisations in Birkenhead helping people to make ends meet. They

are impressive not just because they make a little go a long way (eg, getting supermarkets to hand over surplus food that would otherwise go to waste), but also because they help to preserve people’s dignity. Neo Community, a community centre near the old docks, does everything it can to feed people’s sense of self-worth as well as their bodies. The food bank is arranged like a shop and allows people to pay what they can. The café offers a three-course lunch for £1, but also acts as the area’s social centre.

Emma Wilkes, who founded the centre five years ago, throws in a bit of gentle pedagogy. The art class encourages children to draw fearsome-looking sharks to teach them the dangers of loan sharks, who specialise in getting children to nag parents into buying things they cannot afford. This correspondent found himself gripped by a disconcerting mix of optimism and pessimism. Optimism, because local heroes like Ms Wilkes are doing wonderful work; pessimism, because they face such daunting problems.

Britain has done too little to refashion its welfare state for a post-collectivist age of flexible labour—and what it has done is sloppily thought out and poorly executed. It has also done too little to deal with the problems of a working class devastated by deindustrialisation. The result is that millions of people live on the edge of poverty, and the political system is vulnerable to an eruption from the far right or the far left.

Mr Field tries to tip the balance towards optimism, in his own idiosyncratic way. He says the biggest change in his political lifetime is that “people are hungry”. He thinks the government’s new universal credit makes life worse for people at the bottom, partly because it reduces the amount of benefits available and partly because of practical problems, including long delays in payments. But then he throws in hope. The working class is no longer willing to be taken for granted. This was made clear in the Brexit referendum, when most working-class voters preferred Leave, and also in last year’s general election, when the Tories made advances in Labour heartlands despite running one of the most inept campaigns in memory.

Working-class blues

Yet the working class is confronted by powerful economic headwinds such as globalisation, which means it is cheaper to make ships in China, and automation, which reduces the demand for labour. The local shipbuilder, Cammell Laird, does more business than it did a generation ago but with a small fraction of the jobs. There are also powerful political headwinds that marginalise the traditional working class. Thus Mr Field is threatened with deselection by his local constituency, harangued by a bizarre alliance of hard leftists (who have always hated him) and Remainers (who are furious with him for voting with the government on Brexit). They are on a hiding to nothing. Mr Field will run as an independent if he is deselected. To judge by the way constituents come up and thank him for his work as he walks down the street, he will have no difficulty winning.

He is nevertheless a lonely figure in his sustained commitment to the JAMS. The British political class seems able to spare a thought for them only just before or just after general elections. The Conservative Party is rooted in the world of garden fêtes rather than food banks. The Labour Party has become a coalition of the university-educated and racial minorities. The established press is much more interested in Boris Johnson’s thoughts on burkas than it is about the fact that about half a million people visit food banks every week. ■



The global arms trade

Masters of war

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The arms market is booming, and tilting in the buyers' favour

ONLY a few months ago, Canadians were earnestly debating whether or not the country's Liberal administration was right to go ahead with executing a \$12bn contract to deliver armoured vehicles to Saudi Arabia. The government said it would, but acknowledged its critics' concerns by agreeing to adopt a version of an international treaty that limits arms sales to rogues (see box on next page).

However, things took a different turn. It was the Saudis who plunged the deal into uncertainty. After Canada's foreign minister urged the release of some political prisoners on Twitter, the Saudi government declared that all new business with Canada was suspended. This left Canadians unsure if the kingdom still wants the arms deal. And if the Saudis do walk away, plenty of other countries will be happy to supply armoured cars. "They could get their combat vehicles from Turkey, South Korea or Brazil," says Pieter Wezeman, a researcher at SIPRI, a Stockholm-based think-tank.

In the United States, meanwhile, Congress has been pressing the administration to implement the letter of a law that would force countries to make a hard, instant choice between buying American or Russian weapons. But the Pentagon is hinting that America's huge diplomatic power does not quite stretch that far. Defence officials argue it would be better to accept that

some countries will go on buying Russian weapons for a while, in the hope they will gradually kick the habit.

Both these developments reflect the volatile (and from a Western viewpoint, barely controllable) state of the global arms market. Total demand is growing, the number of sellers is rising and the Western countries that have dominated the business are less confident of shaping the playing field. Above all, buyers are becoming more insistent on their right to shop around. For the likes of India, Saudi Arabia, Egypt and the United Arab Emirates, "this is a buyer's market," says Lucie Béraud-Sudreau of the International Institute for Strategic Studies, a London-based think-tank.

Speak softly and sell a big stick

The numbers show that the global commerce in conventional weapons is still dominated by the United States. But America feels strangely nervous about maintaining that role, and this year it has adopted a more aggressive sales posture. Under a policy proclaimed in April and mapped out in more detail last month, American diplomats have been told to promote weapons sales more actively and speed up procedures for approving them.

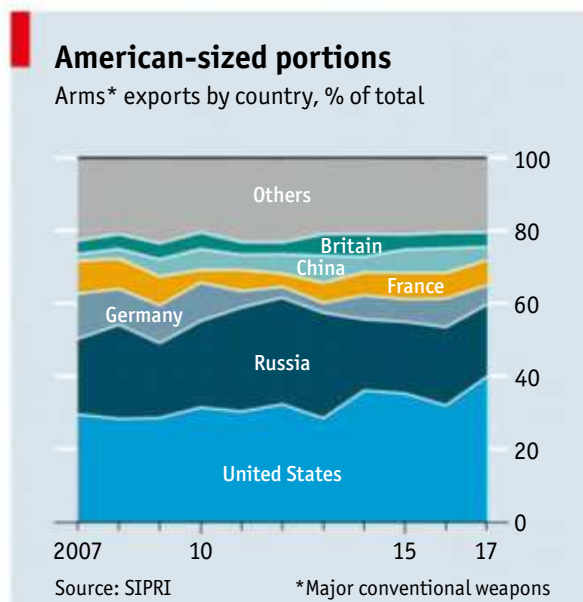
At first sight, American apprehensions seem puzzling. There are several ways to measure the arms market, but America

comes out on top of all of them. SIPRI has studied the volume of cross-border weapon transfers over the five years to December and compared them with the previous five years (see chart on next page).

The size of the world market rose by 10% between the two periods. In the more recent one, America's slice of this expanding pie was 34%, up from 30% in the previous five years. America and its five nearest rivals (in descending order Russia, France, Germany, China and Britain), account for nearly 80% of total transfers.

Britain, meanwhile, claims that last year it jumped to third place among global arms exporters, as measured by the value of their sales. According to the Defence and Security Organisation, a government body, America bagged 53% of the global business, its "highest-ever market share". This left 16% for Russia and 12% for Britain, double the share taken by France.

In part, the jumpiness in Washington, DC, stems from the entry to the market of new competitors, especially China. In part it reflects new products and technologies where America will struggle to keep its lead. Both these challenges were highlighted by the appearance at last year's Paris Air Show of a Chinese military drone that looked very like the American unmanned aircraft that have been used for assassinations, for example in Pakistan. Hitherto, ►►



▶ America has been willing to share these powerful drones only with close European allies. A new policy will broaden the range of customers and thus lessen the risk that China will dominate a market that could soon be worth \$50bn a year.

China has long been better known as a buyer of arms, mainly from Russia, than as a seller. A big share of its arms deliveries have gone to close allies such as Pakistan. But it has enormously increased its capacity to make and sell its own weapons, including ships and submarines.

Meanwhile, American arms-export policy has been a delicate balance between, on the one hand, seizing economic and geopolitical opportunity and, on the other, being careful not to share technologies which could destabilise war zones or be used against the United States.

But such caution can be counter-productive. At a panel discussion in Washington this month, a defence-industry advocate lamented that, because of America's technology-transfer curbs, France had won from it a contract to sell airborne radar to India. "I like the French, but I like American industry even more," he grumbled.

In another Franco-American contest over technology, France is finding it hard to sell more Rafale combat aircraft to its prize arms customer, Egypt, because the accompanying Scalp cruise missile incorporates American know-how, the transfer of which to third parties is barred. France has promised to develop its own technology, but Egypt may not have the patience to wait. Egypt's government has also been a keen purchaser of Russian equipment, including aircraft and attack helicopters.

For defence-equipment manufacturers such as Britain and France, export sales matter ever more as a way to maintain their own industries. Britain's edge in military aviation may depend on its sales to Saudi Arabia. And the Royal Navy's ambitious building programme got a boost when Australia said it would buy British for a new range of frigates. France wants to develop a new air-to-air missile, but only, as Florence Parly, the defence minister, put

it, if it can get foreign customers.

Such desperation adds to the frenzy of market competition. So does the utter indifference Russia and China display towards their customers' human-rights policies. So too does the growth in the number of countries that have graduated from being mainly buyers of weapons and know-how to sellers—Turkey, the Emirates and South Korea, for example.

Japan, which boasts a huge defence industry, is entirely new to the market. It plunged in when the government lifted restrictions on arms exports in 2014. It competes, albeit from a fairly weak position, with China for Asia-Pacific customers.

As for Russia, SIPRI calculates that its share of the global market has slipped (to about 22% in 2013-17). But it offers a blend of tried-and-tested hardware and, to a few customers, superb know-how, especially in air defence.

That creates a dilemma for America, which hopes soon to sell weapons worth \$6bn to India, but is dismayed by that country's determination to acquire S-400 air-defence systems from Russia: missiles

that could ward off potential threats from China or Pakistan. Other countries intent on continuing to buy Russian include Indonesia and Vietnam.

Jim Mattis, America's defence secretary, has implored Congress not to be too harsh with Russia's customers, so long as they pledge gradually to reduce their reliance. In a letter leaked in July to *Breaking Defense*, a specialist news service, he told a congressman: "We are faced with a once-in-a-lifetime opportunity to decrease Russia's dominance in key regions." But that could only happen if America were free to sell its own weapons. For customers, that means that for the foreseeable future they can keep both American and Russian weapons in their arsenals.

It is telling that India has recently been admitted to the Missile Technology Control Regime, a group of countries which promises not to help pariah states obtain ballistic missiles. That will make it easier for both America and Russia to sell long-range rockets to India. The two arms-sales giants, who do not agree on much else, have welcomed India into the club. ■

The United Nations Arms Trade Treaty

Honoured in the breach

The means exist to regulate the global arms trade

IF ALL—or even most—countries abided by the letter and spirit of the UN Arms Trade Treaty (ATT), the world might be rather less grim. Governments that sign up are supposed to halt exports of weapons if they have good reason to think they will be used to flout international humanitarian law. That could cover both internal repression and waging wars by inhumane methods.

Every country in the European Union has ratified the treaty; when it was being crafted, Britain was a keen advocate. But Russia and China have stayed out. The American administration (under Barack Obama) inked the accord, but it has yet to be ratified by the Senate and this looks unlikely to happen. The treaty, which covers everything from tanks to small arms, was opposed by America's gun lobby. Conservative critics in Washington, DC, now call it a piece of liberal Utopianism which would hobble America without reining in its main rivals.

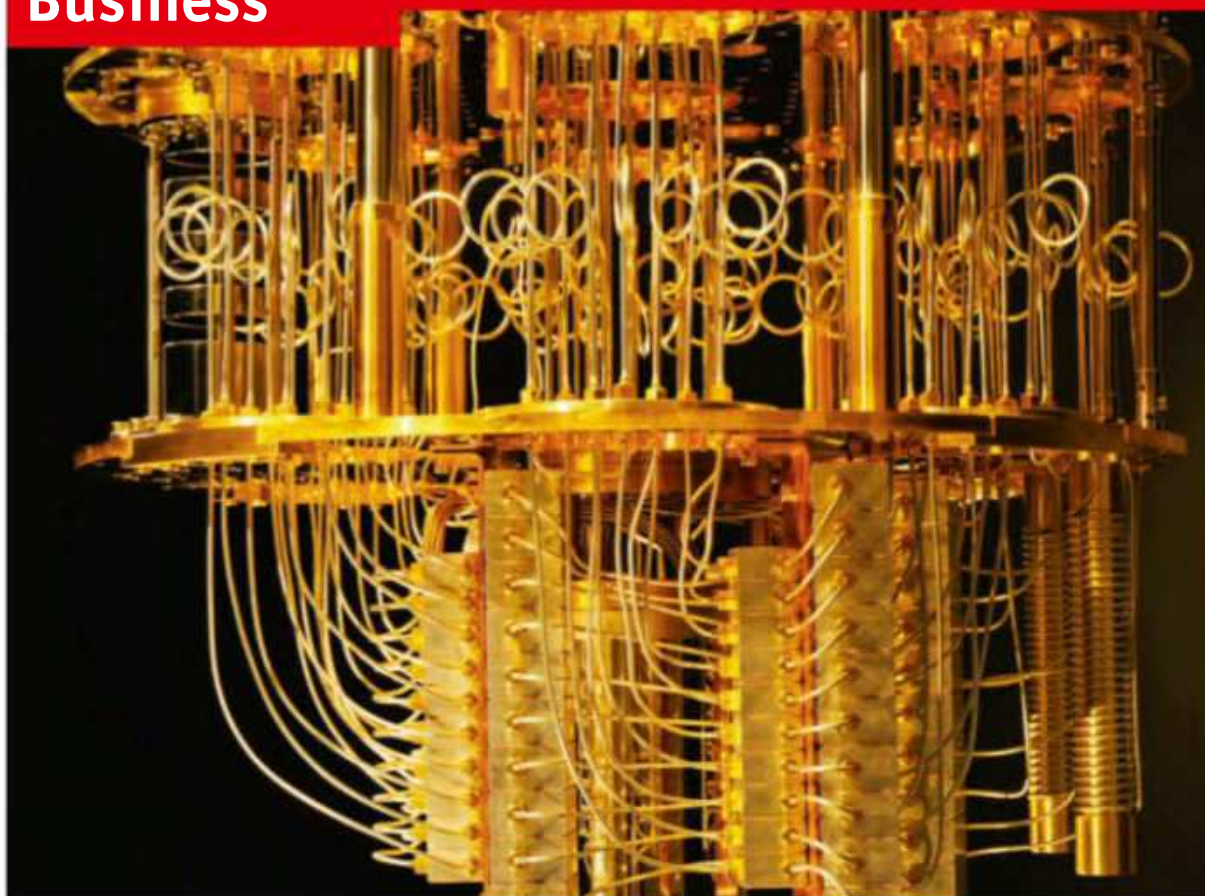
The fear of hobbling may be exaggerated. A year ago, the High Court in London disappointed anti-war campaigners. It ruled that Britain's deliveries of weaponry to Saudi Arabia were not in violation of the treaty, despite the terrible civilian casualties in Yemen, where a Saudi-led coalition is fighting an Iranian-backed one. NGOs that brought the case

have pledged to fight on, and were recently given the right to appeal.

The court ruling focused on a narrow question: whether at the time he gave his approval, the trade minister had reason to think that British-made weapons would be used to perpetrate atrocities. Much of the hearing was conducted in secret. But in their open arguments, lawyers for the government stressed the close relations between British and Saudi militaries, which enabled Britain to have some say in the selection of targets. Whether that improves Britain's moral standing or makes it seem even worse is, of course, a matter of opinion.

Canada was an unlikely absentee from the accord. But in a careful pronouncement last February, its foreign minister, Chrystia Freeland, promised legislation that would pave the way for her country to join. Critics said there was a loophole. Canadian-made weapons or parts could still be shipped to America and thence who knows where. The bill is still being picked over by parliamentarians in Ottawa.

No Western country wants its weapons used to harm Yemeni civilians, and most democracies crave the respectability that goes with signing up to the ATT. But many balk at breaking ties with the lucrative arms markets of the Gulf.



The future of computing

Quantum spring

The technology is advancing and attracting investment, but may face a winter before it enters its summer

COMPUTING was probably always destined to be electronic. Yet even as late as the 1930s, this was not entirely clear. Early in that decade Vannevar Bush, an American engineer, built a mechanical computer with gears, pulleys and shafts rotated by electric motors. His “Differential Analyser”, which took up a small room, could solve equations with up to 18 variables.

Quantum computing, which holds the promise of outclassing even the world’s fastest supercomputers, at least for certain types of problems, is now at a similar stage in its development. Prototypes are functioning but it is not clear what shape the machines will eventually take. One big question, for example, is whether “qubits”, which are the quantum equivalent of transistors, will live in tiny loops of superconducting wire cooled to ultra-low temperatures, be ions trapped in magnetic fields or rely on some other technology.

Even as quantum computers inch forward, a lively ecosystem of software startups has sprung up. Big corporations, venture capitalists and national governments are investing, providing the money for a growing number of new firms. “The Quantum Computing Report”, a website, recently listed more than 70 of them, many of which aim to write software for the new machines (more than a third of them have names starting with Q).

This fledgling industry is seeing the be-

ginnings of a battle between tech giants such as Google, IBM and Microsoft, which are vying with each other to attract developers onto their respective quantum platforms. Some insiders have already started to warn that the sector is getting ahead of itself, predicting a “quantum winter” brought on by unfulfilled promise.

It would be easy to dismiss excitement about quantum computing as the start of another hype cycle. But the technology has huge potential, so it needs to be taken seriously. Classical computers think in “bits”, which can have a value of either 0 or 1. Qubits are capable of “superposition”, meaning they can be in both “states” at the same time. Another key quantum concept is “entanglement”. Qubits can be connected, so that operating on one has an impact on the entangled ones, allowing their processing power to be harnessed in parallel.

The first feature makes for computers that have a huge memory. Superposition means that the capacity to store data doubles with each qubit. A 64-qubit computer has enough memory for 18 quintillion numbers. Entanglement then allows operations at lightning speed. Qubits are set up according to an algorithm suitable for a chosen problem; the system applies the rules of quantum mechanics until it reaches a state that represents the answer.

Reaching this point will be fiendishly difficult. Although researchers have mas-

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tered the art of setting up qubits, getting them to operate flawlessly is still an unsolved problem. Since any outside influence, such as vibration or heat, can make these delicate beasts lose their one-and-zero-ness, or “decohere”, they have to be kept in complete isolation (hence the ultra-low temperatures, which slow atoms’ movement).

Errors also need to be detected and corrected with the help of many other qubits. Since large numbers of qubits appear unachievable for at least a decade, the question of how quantum computers could be put to practical use had not been on researchers’ minds until recently. This started to change a couple of years ago, when hardware-makers managed to build machines with more than a couple of qubits.

Jumping the Q

IBM led the way in 2016 with a 5-qubit computer and then a 20-qubit one in 2017 (pictured above). Its latest “quantum processing unit” (QPU), which was announced last November, has 50, one qubit more than Intel’s. Both were overtaken in March by Google’s Bristlecone, with 72 qubits. Rigetti, a startup, recently said that it is building a 128-qubit system (although more doesn’t necessarily mean better: some qubits are more error-prone than others and there are no commonly agreed benchmarks to measure their quality). Meanwhile, classical computers have been getting better at simulating quantum ones (of up to around 50 qubits), making it easier to test algorithms and applications.

This pace of development recently won the blessing of a luminary of the quantum field, John Preskill of the California Institute of Technology. “Quantum computers with 50-100 qubits may be able to perform tasks which surpass the capabilities of to- ▶▶

► day's classical digital computers," he wrote in a paper, calling such devices "noisy intermediate-scale quantum" (or NISQ, with "noisy" meaning that the qubits will remain error-prone for some time to come).

Big firms are trying to work out what quantum computing might mean for them, says Michael Brett of QxBranch, a startup. Chemicals giants such as BASF and Dow-DuPont want to understand whether the technology could help them "compute" the structures of useful new materials, such as catalysts to reduce the energy used to make fertilisers. Banks, including Barclays and JPMorgan Chase, hope to use them for tasks such as adjusting portfolio risk. Games-makers are also interested in using quantum computing to get video-games to behave more like the real world.

Since quantum talent is in very short supply, companies often enrol the help of startups, which play the role of consultancies. This brings in money for the new firms and also allows them to acquire the intellectual property to develop real software later. Zapata Computing is typical: spun out of MIT, its PhD-equipped employees develop programs on paper, which "look much like sheet music", in the words of Christopher Savoie, its boss.

Quantum harvest

The field has been well-funded by venture capitalists, with capital inflows reaching nearly \$250m last year. Tech firms, too, are putting in resources. IBM has been working in the area longest. Arvind Krishna, global director of its research arm, compares its efforts to how IBM created a market for mainframe computers in the 1960s. It started quantum research in the 1970s; in 2016 it put its 5-qubit quantum computer online so others could use it and start writing programs (something it calls Q Experience). It has since designed tools for programmers, helped MIT to develop online quantum classes and created a network of firms as well as other universities to explore practical applications.

The competition is not far behind. Last month Google released Cirq, a kit of software tools. Rigetti has put a machine with a 16-qubit QPU online. IonQ, another hardware startup, has built a trapped-ion machine, which is easier to program. And then there is Microsoft. Like IBM, it wants to build an "end-to-end system", in the words of Todd Holmdahl, head of its quantum arm. Again like IBM, it offers a "quantum development kit" and even a special programming language called Q#. But any code written in it will have to run on simulation software for years. Microsoft's quantum computer is still a work in progress, since the firm is betting on an untested but much less error-prone "topological" qubit.

IBM, Google and Microsoft are spending heavily to lure developers and applications to their respective platforms. IBM em-

phasises the heavy usage of Q Experience: it now has more than 90,000 users, who have run 5m experiments and published 110 papers. Hartmut Neven, who heads quantum efforts at Google, says its toolkit is targeted at "professional programmers". He insists that his team will soon achieve "quantum supremacy", meaning it will show that its quantum computer is able to solve a problem faster than a classical one (a feat critics already call a stunt, because the problem is unlikely to be one of practical relevance). Microsoft, for its part, has tightly integrated its quantum tools with other programming software to make it easier for classical developers to use them.

Whatever the outcome, none of the hardware will end up in other firms' data centres, let alone on people's desktops, in the near future. Instead, quantum computers will find a home in computing clouds operated by Google, IBM and Microsoft (and also by Amazon and China's Alibaba, which have smaller quantum programmes). Since the machines will be good only at very specific tasks for many years to come, the firms intend to use them mostly as "accelerators", which will take over when specifically needed, much like computers with superfast artificial-intelligence (AI) chips today.

Other than these firms, only government agencies are likely to have their own quantum computers within the next few decades. National armed forces and intelligence services, notably those of America and China, have long funded the field and are likely to continue doing so. They worry that quantum-computing machines might one day be able to crack the world's best encryption, which could give the country that gets there first the capability to decode secret communications or to hack banks.

As in AI, China intends to lead the world in quantum technology. The country has announced plans to spend more than \$10bn to build a national laboratory for quantum science, to open in 2020. This has triggered efforts in Washington, DC, to create a "National Quantum Initiative", which some observers have compared to America's nuclear programme of the 1940s. The European Union launched a quantum-research initiative in 2016 and backed it with more than \$1bn.

The flow of government money is already such that some venture capitalists are complaining about being crowded out. But rising excitement about all things quantum has also fuelled fears that the field is getting overhyped and that—much like AI in the 1970s and 1980s, after it did not live up to its promises—it is headed for a "winter"; a long period of reduced financing and interest.

Some startups are certain that there will be a retreat in a few years and are hedging their bets. Michael Marthaler, co-founder of Heisenberg Quantum Simulations,

hopes that his firm will be established enough to be able to "hibernate". Other observers of the quantum-computing scene warn that much of the software written today may become obsolete should quantum technology take an unexpected turn.

But even if quantum's spring turns to winter, the chances are high that there will eventually be a summer. That has happened often enough in the past. To use a concept developed by Carlota Perez, an economic historian, revolutionary technologies always go through a "gilded age", often accompanied by an investment bubble that pops, before entering a "golden age" of widespread deployment. There is little reason to believe that quantum computing will deviate from that path. ■



Glyphosate and cancer

Bayer beware

A court verdict against Monsanto could have big consequences

IT WAS a battle between David and Goliath. On one side was Dewayne Johnson (pictured, above), a former school caretaker who is terminally ill with non-Hodgkin lymphoma, a blood-cell cancer. On the other was Monsanto, a chemicals giant recently purchased for \$63bn by Bayer, a German rival. In the first case of its type, Mr Johnson's lawyers argued that Roundup, a weedkiller made by Monsanto, had caused his cancer. To the industry's shock, on August 10th the court decided in Mr Johnson's favour, ordering Bayer to pay him \$289m in damages.

Bayer's shares abruptly fell by 11% to their lowest level in five years, wiping \$11bn off the firm's value as investors totted up the potential bill from other litigants. Other weedkiller-makers were hit harder ►►

▶ still. Shares in Nufarm, an Australian chemicals firm that makes products similar to Roundup, slid by 17%.

The case centred on whether glyphosate, an ingredient in Roundup, causes cancer. Bayer denies that, and has the backing of many. Although the World Health Organisation declared in 2015 that glyphosate was “probably carcinogenic”, America’s Environmental Protection Agency and the European Union consider it safe to use. Most reputable scientific studies find that glyphosate poses no risk to humans. Yet there is a correlation between farming work and incidence of non-Hodgkin lymphoma. More research is needed to find whether there is a causal link to glyphosate exposure, or whether it becomes toxic when mixed with other chemicals, says Robin Mesnage, a toxicologist at King’s College London.

The award to Mr Johnson is so substantial because his lawyers persuaded the jury that Monsanto had known of links between glyphosate and cancer since 1983 and had covered this up. Bayer also denies this. It hopes the ruling will be overturned by an appeal court, where decisions are made by judges rather than a jury influenced by what a company spokesman reportedly called “junk science” and “emotional arguments”.

But investors are anxious because even if Mr Johnson’s damages are reduced or overturned, another 5,000 cases targeting Monsanto are going through America’s legal system. The total cost could hit \$5bn, said Alistair Campbell of Berenberg Bank, similar in scale to the \$4.2bn Bayer paid out in the 2000s when its Baycol cholesterol drug was linked to patient deaths. And a regulatory crackdown on glyphosate would not only hit sales of pesticides and weedkillers, but also the seeds that firms have developed to be used with them.

Bad as this all sounds for Bayer, there is a silver lining. The case, and others like it, could hand big chemicals companies an advantage, says Jason McLinn of Bain & Company, a consultancy. Extra testing of chemicals to avoid legal cases, even when regulators have approved a substance, will push up the cost of developing new ones; that cost will be harder for smaller firms to bear. Worries about indiscriminate pesticide use could also encourage greater take-up of precision techniques, which big firms have invested in.

European farmers, meanwhile, fret that the judgment will embolden France, which wants to ban glyphosates in the EU. On August 11th its environment minister declared the “beginning of a war” against the chemical. Farmers do not have a wide choice of pesticides that are both cheap and effective. They and their workers are most exposed to glyphosate’s possible dangers; but they will also face a financial hit should it be outlawed. ■

The aviation business

Border-line ridiculous

Growing passport queues are vexing airlines as well as their passengers

WHEN weary travellers step off a long flight, they want to get off the plane and on to their destinations as quickly as possible. But getting out of the airport is becoming much more taxing for visitors to America and Europe because of lengthening queues for passport control. Not only are passengers getting fed up; airlines and many airports are, too.

On August 13th Virgin Atlantic grumpily published data showing that Heathrow hit its target for processing more than 95% of non-EEA passengers within 45 minutes on only one day in July, with some waiting up to 156 minutes. It is not just a blip. Queues at Heathrow, Europe’s biggest airport, have been growing since 2015 (see chart). In Europe’s Schengen passport area, they have grown since more thorough checks were introduced last year owing to the migrant crisis. Queues have also increased in America, where travellers in Boston, New York and Miami often find themselves waiting in line for over three hours.

Airlines and airports are starting to worry that the queues could discourage flying for business. Austerity is a primary cause of the waits, according to Andrew Charlton of Aviation Advocacy, a research firm based in Geneva. Since the 2007-09 financial crisis, air traffic has increased and budgets for passport controllers have been slashed. The number of passengers going through Britain’s airports has risen by a quarter since 2012, for example, but its border force’s budget has fallen by a tenth. America’s international passenger numbers have risen three times faster than its border-patrol budget in the same period.

The plea from airlines and airports is for governments to spend more on manning passport kiosks. John Holland-Kaye,

chief executive of Heathrow Airport (whose chairman, Paul Deighton, is also chairman of The Economist Group), has argued that more international passengers should be allowed to use automated passenger kiosks to speed up processing. But his advisers doubt if either solution is politically feasible. Taxpayers are more interested in smoothing entry for themselves than for foreigners. Earlier this month, for example, Britain’s government was trumpeting plans for special lanes for British citizens after Brexit, which would doubtless worsen queues for everyone else.

Airports are not helpless. In 2014 Dallas-Forth Worth airport in Texas paid for extra automatic passport gates to slash queue sizes. That helped it to win an award from Airport Council International, a trade body that represents the world’s airports, for the greatest customer satisfaction of any large airport in North America. And airlines around the world often pay a small sum per passenger to speed business-class customers through special passport-control lanes. Many governments would gladly shift the cost of passport checks. Too gladly, reckon some airports, who fear the entire bill for passport control may eventually be dumped on them. ■

Start Today

Suits you

TOKYO

A Japanese firm is shaking up the business of selling clothes online

ONE problem plagues the business of selling clothes online—predicting how a garment will fit without trying it on. Behemoths such as ASOS, a British internet platform that sells its own and others’ apparel, try to overcome this by allowing people to buy several sizes to try on at home and return items free of charge—at huge cost to them. Enter the body-measurement suit from Start Today, a Japanese firm that runs the “Zozotown” platform in Japan on which clothing companies from around the world sell their wares, as well as its own private label, Zozo.

In the past three months Start Today has distributed to just over 1m Japanese customers, free of charge, its “Zozosuit”, a skin-tight, full-body suit covered in around 350 fiducial markers, small objects that can be used as a point of reference for measurements. Shoppers slip on the suit and slowly rotate as their smartphone takes photos.

The firm uses the images to create a 3D scan of their body, which it can use to offer a range of customised services. Among these are made-to-measure business suits for men from its Zozo brand, which are sell- ▶

Business, no pleasure

Heathrow Airport, non-EEA* passengers through passport control in under 45 minutes
Average, %





Doubles as clubwear

► ing strongly, and jeans and T-shirts that fit most snugly from tens of thousands of pre-cut patterns, also from Zozo. At the most basic level, when customers choose an item from one of the 6,400 brands listed on Zozotown—the core of Start Today's business—the platform uses the Zozosuit data to recommend the right size.

A first, more high-tech version of the suit proved too expensive (it had capacitors holding an electric charge that measured body shape by how much the suit stretched). But its latest version costs the company only ¥1,000 (\$9) a piece. Masahiro Ito, a board member who oversees engineering at the firm, says the fashion industry has not yet adapted to meet the needs of a generation accustomed to buying everything online, to their specifications and at their convenience. “We offer exactly that,” he says. Other companies are watching closely. Fast Retailing, a giant which owns the UNIQLO brand, is one firm looking at ways to measure the body using smartphones.

How the suit fares is crucial for Start Today's future. The Zozotown platform is the undisputed giant of online fashion retail in Japan. It created and dominates the market for online clothing sales; the second biggest platform, Marui Web Channel, makes only a tenth of its sales. It takes lucrative cuts of up to around 35% from brands it hosts; its founder and boss, Yusaku Maezawa, is now Japan's 18th-richest person.

But analysts reckon it may be reaching saturation point. The company counts 6% of the country's population as active users (meaning those who have bought some-

Sport and the media

Out of the woods

NEW YORK

Tiger Woods's resurgence is a boon to golf, sponsors and broadcasters

A ROAR like this had not been heard on a golf course for almost a decade. It was the sound of fans cheering on Tiger Woods as he made crucial putts, pumped his fist and almost won a big tournament, the USPGA Championship, on August 12th. Although Mr Woods finished second there were cheers and fist-pumps off-camera, too, from network executives and his sponsors. They know that Tiger is back, and they know, too, that that is very good for business.

No individual athlete has as outsized an impact on the popularity of his sport as Mr Woods when he is in contention at a tournament. Nearly 8.5m Americans tuned in to watch the USPGA's final round, according to Nielsen, a research outfit which measures viewership. That was 73% more viewers than for the same day a year ago, when Mr Woods did not take part. It was the biggest audience for the tournament since 2009, the last time Mr Woods had a chance to win it (another second-place finish).

That was just before his epic fall from grace—from front-page hero, a winner of 14 major golf championships, to lurid tabloid fodder over reports of serial infidelities, the break-up of his marriage and estrangement from some of his oldest friends in professional golf. He lost most of his endorsement deals, with firms such as AT&T and Procter & Gamble. When he tried to return, injuries set him back. He had four operations on his back. Many doubted he would ever win again, including Mr Woods himself.

Fans are not the only ones drawn to his comeback story (even if some relished the downfall that preceded it). Sponsors have begun to bet again on Mr Woods. In 2016 Bridgestone Golf signed a multi-year deal with the golfer. The chief executive of Bridgestone at the time compared Mr Woods to Muhammad Ali and Michael Jordan in global appeal. Last year TaylorMade sealed a contract with

Mr Woods to use its clubs. Nike, which stood by Mr Woods in the bad times, has a valuable clothing deal with him.

All these firms will be winners from his resurgence, even as sponsors of his competitors will be deprived of screen time, says Jeff Greenfield of C3 Metrics, an advertising-data firm: “The cameras are all on Tiger because the networks are not dumb.”

There will be other winners. Discovery has announced a streaming service to show American golf tournaments outside America, beginning next year. A rejuvenated Mr Woods will help sell that product. Broadcast networks will be able to earn more for advertisements. “We're going to see rates surge like crazy,” Mr Greenfield says (by at least 35%, he reckons). They should enjoy the Tiger effect while it lasts. He is 42 years old. When he fades again, so will the fans' cheers.



Burning bright again

thing in the past 12 months). Its share price dipped sharply in July after growth slowed slightly. Bespoke services could attract more customers, especially men, who make up only around 30% of active users, reckons Osamu Yamada, an independent retail analyst.

Observers are more circumspect about whether the suit can help Start Today on its other path to growth: expanding abroad. Since July customers in 72 countries have been able to request a body-measurement

suit to help them buy clothes from the Zozo label. An attempt a few years ago to take the Zozotown platform into China, Hong Kong and South Korea (before it came up with the body-measurement suit) failed. Mr Ito notes that Zozotown could not compete then with existing companies offering more or less the same products; for now at least, the suit is a unique service. But the company will still have to work harder than it does at home to persuade people to squeeze into it. ■

Schumpeter | Life on Mars

Elon Musk has pushed his firm to breaking point—and reinvigorated the public company



WHEN Elon Musk started Tesla in 2003 the world was a different place. The carnage of the dotcom crash was still visible—although Mr Musk had made \$200m after PayPal, which he co-founded, was bought by eBay in 2002. The car industry was belching out fumes and complacency. General Motors had double the number of staff it does now. Chrysler was being run into the ground by Daimler, its then owner. Sergio Marchionne, who later saved Fiat and Chrysler, was a nobody toiling at a Swiss industrial-testing company. In 2010 Tesla floated its shares. Going public was the obvious thing to do. No one had heard of “unicorns”—multi-billion-dollar tech firms that are financed privately.

A stifling orthodoxy then held sway in corporate America. Inspired by Warren Buffett and Jack Welch, a former boss of General Electric, this doctrine held that the only attractive businesses were well-established ones, with a high market share, a “moat” to protect them against competition and lavish cashflows. Even the new tech darling of those years, Google, which floated in 2004, conformed to this conservative ideal. It made a profit in its first quarter as a listed firm, invested peanuts and, by 2010, controlled the search market. Meanwhile, passive investing was taking off. Its premise was that it was pointless to back individual companies—better just to own the entire market and go to sleep.

At first, Mr Musk’s approach to running a public company was exhilaratingly different. He persuaded institutional investors such as Fidelity and Baillie Gifford to make huge bets on his loss-making firm. Its mission was outlined in a 2006 “Masterplan”: to make the internal-combustion engine extinct by mass-producing electric vehicles (EVs). When sales of Tesla’s Model-S sedan took off in 2013, its shares soared. Tesla’s public listing complemented its brand-building efforts. Fanatical customers lined up to give Tesla deposits in order to reserve cars that it had not yet built.

But somewhere along the line this liberated spirit has morphed into a crusade or a tragedy or a farce, depending on your view. Mr Musk, who thrives by stoking expectations to excess, is partly to blame. So is the tech boom, which Tesla has got caught up in, prompting comparisons with Apple or Amazon. But Tesla has little in common with these firms. It is capital-intensive, enjoys no network effects and has no breakthrough technology (Panasonic supplies its batteries). It also has higher unit costs than

rivals, despite trying to automate production. The firm is trying to compete in an industry that has abysmal returns on capital, as the late Mr Marchionne loved to point out.

Cloaked in the glitter of Silicon Valley but facing a grimy fight with Detroit, Tesla’s position is stretched on every dimension. Its valuation of \$70bn, including net debt, implies that sales will be six times bigger in a decade and is acutely sensitive to changes in assumptions. To justify it, Tesla says it can lift production fast. In the long run it would need to have about a 3% share of the global car industry by revenues to support its value. Today it is at 0.6%. Losses mean the firm has \$11bn of debt, \$3bn of which matures before 2020, leaving it vulnerable to dips in confidence.

This high-wire act has led over 20 executives to leave in the past 24 months. Meanwhile, the tech boom has made life difficult for Wall Street’s short-sellers, leading them to escalate their attacks on Tesla, an easy target. And the price signal sent by Tesla’s valuation has stimulated a response. Conventional car firms are piling into EVs—by 2020 there will be dozens of new models.

Somehow, Mr Musk must keep the plates spinning. There has been nutty conduct, from a wild interview with *Rolling Stone* to his slandering of a diver in the Thai cave rescue. But more revealing is his hyperactive rummaging for a plan that reinvents Tesla or changes how it is perceived. In 2016 it bought Solar City, an energy firm. In July it said it would build a huge factory in China. Mr Musk is giving detailed short-term guidance (he expects a profit next quarter). On August 7th he tweeted that he might take Tesla private at \$420 per share (the price was \$342 the day before) and that funding was secured. Later, he clarified that he expected half of outside shareholders to stay invested, and that Saudi Arabia’s sovereign-wealth fund might help him out. That may have been insufficiently solid to back up the tweet; the Securities & Exchange Commission has reportedly sent subpoenas to Tesla.

Going private sounds rather like a sabbatical from reality. It is far from clear what it would solve. The circus around Tesla is mainly due to Mr Musk, not to how public securities are regulated. For loyal shareholders a deal might mean part-financing a buy-out of a minority of investors at a premium, and after that, less liquidity and transparency. Any new investor would be paying 50% more than they would have spent buying shares in May, which should make even the indisciplined Saudis think twice. If the private plan flops, Tesla’s likely destiny is a soggy share price and a long struggle to ramp up production. At a lower valuation a big car firm might eventually buy it or take a stake.

Look at those cavemen go

Entrepreneurs often have it tough—Charles Goodyear went to a debtor’s prison before patenting a process to vulcanise rubber in 1844. But Mr Musk may not have the stomach for more years of slog. In a 2006 memo he named SpaceX, his private rocket firm, as his day job. What he might view as a disappointment would be a success by any other standard. Even if Tesla’s shares halve, it will have created \$20bn of shareholder wealth, including \$4bn for Mr Musk. Its soaring ambition has kindled investment across the car industry, in a process of disruption first described by Joseph Schumpeter, after whom this column is named. Thanks in part to Mr Musk’s example, it is fashionable again for an elite of public firms to invest heavily, including Netflix, and Amazon in recent years. Most boardrooms now are less obsessed with defensive hoarding. Mr Musk has tested the limits of the public firm, but he has reminded America of its possibilities, too. ■



John Maynard Keynes

Was he a liberal?

People should be free to choose. It was their freedom not to choose that troubled John Maynard Keynes

IN 1944 Friedrich Hayek received a letter from a guest of the Claridge Hotel in Atlantic City, New Jersey. It congratulated the Austrian-born economist on his “grand” book, “The Road to Serfdom”, which argued that economic planning posed an insidious threat to freedom. “Morally and philosophically, I find myself”, the letter said, “in a deeply moved agreement.”

Hayek’s correspondent was John Maynard Keynes, on his way to the Bretton Woods conference in New Hampshire, where he would help plan the post-war economic order. The letter’s warmth will surprise those who know Hayek as the intellectual godfather of free-market Thatcherism and Keynes as the patron saint of a heavily guided capitalism.

But Keynes, unlike many of his followers, was not a man of the left. “The Class war will find me on the side of the educated bourgeoisie,” he said in his 1925 essay, “Am I a Liberal?”. He later described trade unionists as “tyrants, whose selfish and sectional pretensions need to be bravely opposed.” He accused the leaders of Britain’s Labour Party of acting like “sectaries of an outworn creed”, “mumbling moss-grown demi-semi-Fabian Marxism”. And

In this series

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he stated that “there is social and psychological justification for significant inequalities of incomes and wealth” (although not for such large gaps as existed in his day).

Why then did Keynes advocate Keynesianism? The obvious answer is the Great Depression, which reached Britain in the 1930s, shattering many people’s faith in unmanaged capitalism. But several of Keynes’s ideas dated back further.

He belonged to a new breed of liberals who were not in thrall to laissez-faire, the idea that “unfettered private enterprise would promote the greatest good of the whole”. That doctrine, Keynes believed, was never necessarily true in principle and

was no longer useful in practice. What the state should leave to individual initiative, and what it should shoulder itself, had to be decided on the merits of each case.

In making those decisions, he and other liberals had to contend with the threats of socialism and nationalism, revolution and reaction. In response to the Labour Party’s growing political clout, a reform-minded Liberal government had introduced compulsory national insurance in 1911, which provided sickness pay, maternity benefits and limited unemployment assistance to the hard-working poor. Liberals of this kind saw unemployed workers as national assets who should not be “pauperised” through no fault of their own.

This cadre of liberals believed in helping those who could not help themselves and accomplishing collectively what could not be achieved individually. Keynes’s thinking belongs within this ambit. He dwelled on entrepreneurs who could not profitably expand operations unless others did the same, and on savers who could not improve their financial standing unless others were willing to borrow. Neither group could succeed through their own efforts alone. And their failure to achieve their purposes hurt everyone else, too.

How so? Economies produce, Keynes said, in response to spending. If spending is weak, production, employment and income will be correspondingly feeble. One vital source of spending is investment: the purchase of new equipment, factories, buildings and the like. But Keynes worried that private entrepreneurs, left to their own devices, would undertake too little spending of this kind. He once argued, provocatively, that America could spend its way to prosperity. Certainly, countries could underspend their way out of it.

Earlier economists were more sanguine. They believed that, if the willingness to invest was weak and the desire to save was strong, the interest rate would fall to bring the two into alignment. Keynes thought the interest rate had another role. Its task was to persuade people to part with money and hold less-liquid assets instead.

Money’s appeal, Keynes understood, was that it allowed people to preserve their purchasing power while deferring any decision about what to do with it. It gave them the freedom not to choose. If people’s demand for this kind of freedom was particularly fierce, they would part with money only if other assets seemed irresistibly cheap by comparison. Unfortunately, asset prices that were so very low would also depress capital spending—resulting in diminished production, employment and earnings. Falling incomes would reduce the community’s ability to save, squeezing it until it matched the nation’s meagre willingness to invest. And there the economy would languish. ►►

► The resulting unemployment was not merely unjust, it was also thuddingly inefficient. Labour, Keynes pointed out, does not keep. Although workers themselves do not disappear through disuse, the time they could have spent contributing to the economy is squandered for ever.

Such wastefulness still haunts the world. Since the beginning of 2008, the American workforce has put in 100bn fewer hours than it could have if fully employed, according to the Congressional Budget Office. Keynes was often accused by bean-counting officials of a cavalier disregard for fiscal rectitude. But his penny-foolishness was nothing compared with the extraordinary waste of resources from mass unemployment.

Somewhat pink

The remedy most often associated with Keynes was simple: if private entrepreneurs would not invest heavily enough to maintain high employment, the government should do so instead. He favoured ambitious programmes of public works, including rebuilding South London from County Hall to Greenwich so that it rivalled St James's. In his letter to Hayek, he admitted that his moral and philosophical agreement with "The Road to Serfdom" did not extend to its economics. Britain almost certainly needed more planning, not less. In the "General Theory" he prescribed "a somewhat comprehensive socialisation of investment".

His worst critics have seized on the illiberal, even totalitarian, implications of that phrase. It is true that Keynesianism is compatible with authoritarianism, as modern China shows. The interesting question is this: if Keynesianism can work well without liberalism, can liberalism prosper without Keynesianism?

Liberal critics of Keynes make a variety of arguments. Some reject his diagnosis. Recessions, they argue, are not the result of a curable shortfall of spending. They are themselves the painful cure for misdirected spending. Slumps thus pose no conflict between liberty and economic stability. The remedy is not less liberalism but more: a freer labour market that would let wages fall quickly when spending flags; and an end to activist central banks, because artificially low interest rates invite the misdirected investment that ends in a bust.

Others say that the cure is worse than the disease. Recessions are not reason enough to infringe on liberty. This stoicism was implicit in Victorian institutions like the gold standard, free trade and balanced budgets, which tied governments' hands, for better or worse. But by 1925, society could no longer tolerate such pain, partly because it no longer believed it had to.

A third line of argument mostly accepts Keynes's diagnosis but quarrels with his most famous prescription: public mobili-

sation of investment. Later liberals placed more faith in monetary policy. If the interest rate would not naturally reconcile saving and investment at high levels of income and employment, modern central banks could lower it until it did. This alternative sat more comfortably with liberals than Keynesian fiscal activism. Most of them (although not all) accept that the state has a responsibility for a nation's money. Since the government will need a monetary policy of one kind or another, it might as well choose one that helps the economy realise its full potential.

These three arguments have rebuttals. If an economy has spent badly, surely the solution is to redirect expenditures, not to reduce them. If liberal governments do not fight downturns, voters will turn to illiberal governments that do, jeopardising the very freedoms the government's pious inaction was meant to respect.

Last, Keynes himself thought easy money was helpful. He just doubted it was suffi-



cient. However generously supplied, extra liquidity may not revive spending, especially if people do not expect the generosity to persist. Similar doubts about monetary policy have revived since the financial crisis of 2008. The response of central banks to that disaster was less effective than hoped. It was also more meddlesome than purists would like. Central-bank purchases of assets, including some private securities, inevitably favoured some groups over others. They thus compromised the impartiality in economic affairs that befits a strictly liberal state.

In severe downturns Keynesian fiscal policy may be more effective than monetary measures. And it need not be as heavy-handed as its critics fear. Even a small and unassuming state must carry out some public investment—in infrastructure, for example. Keynes thought these projects should be timed to offset downturns in private spending, when men and materi-

als would anyway be easier to find.

In promoting investment, he was happy to entertain "all manner of compromises" between public authority and private initiative. The government could, say, underwrite the worst risks of some investments, rather than undertaking them itself.

By the 1920s Britain had progressive taxation and compulsory national insurance, which collected contributions from wage-earners and firms during periods of employment, then shelled out unemployment benefits during spells of joblessness. Although not intended as such, these arrangements served as "automatic stabilisers", removing purchasing power during booms and restoring it during busts.

This can be taken further. In 1942 Keynes endorsed a proposal to lower national-insurance contributions during bad times and raise them in good. Compared with varying public investment, this approach has advantages: payroll taxes, unlike infrastructure projects, can be adjusted with the stroke of a pen. It also blurs ideological lines. The state is its most Keynesian (judged by stimulus) when it is also at its smallest (measured by its tax take).

Keynesian theory is ultimately agnostic about the size of government. Keynes himself thought that a tax take of 25% of net national income (roughly 23% of GDP) is "about the limit of what is easily borne". He worried more about the volume of spending than its composition. He was broadly happy to let market forces decide what was purchased, provided enough was. Done right, his policies only distorted spending that would otherwise not have existed at all.

Keynesianism can certainly be carried to excess. If it works too well in reviving spending, it can strain the economy's resources, yielding chronic inflation (a possibility that also worried Keynes). Planners can miscalculate or overreach. Their power to mobilise resources can invite vociferous lobbying, which can turn militant, requiring a forcible government response. The totalitarian states Keynes worked so hard to defeat showed that the "central mobilisation of resources" and "the regimentation of the individual" could destroy personal liberty, as he himself once noted.

But Keynes felt that the risk in Britain was remote. The planning he proposed was more modest. And some of the people carrying it out were as worried about creeping socialism as anyone. Moderate planning will be safe, Keynes argued in his letter to Hayek, if those implementing it share Hayek's moral position. The ideal planners are reluctant ones. Keynesianism works best in the hands of Hayekians. ■

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Emerging markets

Fear of the lira

Turkey's crisis is not fundamentally contagious

IN 1546 Girolamo Fracastoro, a doctor and poet, published an elegant theory of contagion. Infections spread in three ways, he argued: by direct contact, via an intermediary, or at a distance, through the air. In medicine, his theory is now considered quaint. In economics, however, it still works pretty well.

On August 10th President Donald Trump sent a pathogenic tweet, announcing a doubling of tariffs on Turkish steel and aluminium. It followed earlier sanctions on two Turkish ministers involved in detaining Andrew Brunson, an American pastor, on dubious charges. The lira, which had already lost 38% of its value since the start of the year, shed another eight percentage points in the tweet's aftermath.

Early medical scholars believed glutons were more susceptible to disease than cleaner-living folk. Similarly, Turkey has become vulnerable to financial disorder through macroeconomic intemperance. Businesses have borrowed heavily in foreign currencies. The government, which has manageable debt of its own, has guaranteed large amounts of private credit.

Inflation is now over 15%, far above the central bank's target. But the monetary authority's freedom to respond has been hampered by President Recep Tayyip Erdoğan's distaste for higher interest rates. The current-account deficit exceeds 5% of GDP. To fill that growing gap, Turkey relies on foreign capital inflows. But rising interest rates in America make capital harder to attract.

Turkey must now cut back. The country's new finance minister, Berat Albayrak, who also happens to be the president's son-in-law, says the government will strengthen fiscal discipline and narrow Turkey's current-account deficit. Turkey's central bank has also tightened monetary policy indirectly, suspending some of its regular auctions of cash, thereby forcing banks to borrow overnight at an interest rate higher than its declared policy rate.

The slowdown in import spending will pass some of Turkey's sickness on to its trading partners. This is a direct form of transmission, akin to one rotten grape touching and tainting another, in Fracastoro's analogy. The countries that export the most to Turkey, relative to their GDP, include Bulgaria, Iran and Georgia. But Tur-

key is not otherwise a big part of the global fruit bowl, buying 1.3% of the world's traded goods.

The more worrying form of transmission is the second: via an intermediary. In Turkey's case, the intermediaries of concern are its foreign lenders, which are also important sources of credit to many other markets.

Most foreign lending to the country flows through the local subsidiaries of European banks. On August 10th, reports suggested that the European Central Bank was worried about the exposure of some of the euro zone's financial institutions. That prompted a noticeable fall in the Euro Stoxx bank stock-price index. As *The Economist* went to press, shares of the two most exposed lenders were over 9% lower.

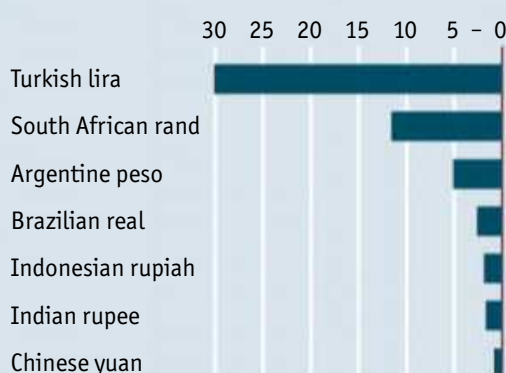
Euro-area banks have lent about \$150bn to Turkey, amounting to about 10% of their combined equity. The majority of those loans (\$80bn) belong to Spanish banks, especially to BBVA, which owns half of Garanti, Turkey's second-largest private bank. Other exposures are mainly scattered among the subsidiaries of Italy's UniCredit and France's BNP Paribas.

For this handful of banks, the immediate risk is that Turkish borrowers struggle to repay foreign-currency debts that are now worth much more in lira terms. Thus far, the country has relatively few non-performing loans (around 3%). But defaults are expected to rise sharply.

The infection should, however, remain minor. In a worst-case scenario, European parent banks would walk away from their local affiliates and write off the equity losses. That would cost them between 1% and 12% of group equity, according to Deutsche Bank. Such costs would certainly hurt the banks' shareholders and perhaps oblige them to strengthen their capital buffers. But it would not threaten their solvency or require outside intervention, says ►►

Patient zero?

Currencies against the dollar
 August 10th (peak) - 13th (trough), 2018, % change



Source: Bloomberg

► Alexandre Tavazzi from Pictet Wealth Management. He thinks “the market is selling before looking at the numbers.”

That tendency to sell before looking represents the third, and perhaps most worrying, mode of transmission in emerging-market epidemiology. Fracastoro worried about “noxious air” transmitting disease across distances. Economists, mustering equal precision, worry that the dampened “spirits” of investors can transmit a crisis across countries, undeterred by the fundamental economic distinctions between them.

On August 13th, India’s rupee weak-

ened to a record low (70 to the dollar) despite the country’s modest inflation and light foreign-currency debt. Argentina’s central bank hiked interest rates from 40% to 45% to demonstrate its commitment to stabilising prices and the peso. And South Africa suffered horrible palpitations in its currency. The rand fell by almost 10% after Mr Trump’s tweet before settling down.

But that day’s mania did not persist. Turkish regulators eased reserve requirements, giving banks greater access to the dollars on their balance-sheets, and curtailed currency-swap deals, making it harder for foreign speculators to target the

lira. The government also said that Qatar will make \$15bn of direct investments in the country, though the details were hazy.

The effect on Turkey’s currency was surprisingly powerful. Having traded at over seven to the dollar at the start of this week, the lira was hovering closer to six by August 15th. Global investors moved on to other worries, such as the disappointing earnings of Tencent, a Chinese tech firm that weighs far more heavily in most emerging-market investors’ portfolios than all of Turkey’s shares combined. Turkey’s crises, sadly, are more communicable than its rallies. ■

Buttonwood | Value judgment

The contrarian case for emerging markets

TWENTY years ago, on August 17th 1998, the Russian government devalued the rouble, defaulted on its domestic debts and suspended all payments to foreign creditors. It was one of the most dramatic days of a year-long emerging-market crisis that began with the devaluation of the Thai baht. South Korea and Malaysia would suffer brutal recessions. President Suharto of Indonesia was forced to resign after 32 years that May. But it was Russia’s default that shook the world.

Talk of rich-world recession was soon in the air. The Federal Reserve would cut interest rates three times before the year was out. The MSCI index of emerging-market stocks, which had lost 40% of its dollar value in the year leading up to August 1998, dropped by more than a quarter in that month alone.

Emerging-market assets are not as scorned now as they were then. The panic resulting from Turkey’s crisis is not anything like as acute. But there is no shortage of reasons for investors to be wary.

Unloved asset classes have at least one charm—they tend to sell at a discount. The price you pay for a stream of company earnings in emerging markets is lower than in the rich world—and far lower than in America. After a Turkey-inspired sell-off in the foreign-exchange market, currencies look fairly valued. A lot of fund managers would be putting their careers at risk by buying assets that have just fallen a lot. But those with longer horizons may find it worthwhile to take a look.

It is not so much that emerging markets are cheap, but that they are not dear. The price-to-earnings, or PE, ratio for the dollar index of emerging-market stocks is 14, a bit below its average since 1996. It looks even better value when you compare its PE ratio to that of the S&P 500 index of American stocks over time. At the

Relativity and gravity

Price-to-earnings ratio, United States relative to emerging markets, September 1st 2007=100



start of 1996, both had PE ratios of around 18. Whenever the S&P 500’s valuation has since risen relative to that of emerging-market stocks, it has eventually fallen back again (see chart). America’s stockmarket currently has a PE of 23. It has been even dearer relative to emerging-market stocks in the past—but only rarely.

Sound FX

There other factors to consider. Currency risk is one. In rich countries, stocks and currencies sometimes move in offsetting directions. When the pound slumped after the Brexit vote in June 2016, it prompted a rally in British stocks, as companies’ foreign earnings became more valuable in sterling terms. Emerging markets are different. The prices of shares and currencies tend to rise and fall in tandem.

Buying cheap stocks is no good if the currencies they are denominated in are overvalued. But is not obvious that they are. Even before the recent selling, real exchange rates in most big emerging markets were below their ten-year averages. A bout of high inflation would upset that reckoning. Currencies might then need to fall to

keep the real exchange rate steady and exports competitive. That is not a big risk. Of the 25 emerging markets listed on the indicator pages of *The Economist*, only three (Turkey, Argentina and Egypt) have inflation rates above 6%. Most are below 3%.

It is unsurprising, then, that emerging markets are favoured by “value” investors. This austere band prefers stocks with a low PE or a low price relative to the book value of assets. GMO, a fund-management group with an almost fanatical devotion to value, has a heavy weighting of emerging-market shares in its discretionary portfolio (and no American equities).

For many tastes, the value approach is a bit too virtuous, a little too much like a diet of steamed vegetables. There is no law that says cheap stocks cannot become cheaper. Turkey may be an outlier in terms of its erratic policymaking and the scale of its foreign debts, but its agonies seem likely to be protracted. Troubles elsewhere are a drain on confidence. Russia is another target of US sanctions. Mexico has NAFTA negotiations hanging over it. Elections in Brazil are likely to be fractious. China’s economy is slowing. The valuation gap with America may already be stretched. But it could still widen.

It would be nice if it were easy to judge when to lighten up on dear stocks and load up on cheaper ones. People who can do this reliably are rare. For everyone else, valuation must come into the reckoning. Betting on emerging markets at this juncture would be gutsy. But sometimes the time to buy is when others are scared. There was plenty to fear 20 years ago. The emerging-market crisis had rattled much of Asia and would soon roil Brazil and Argentina. Even so, emerging-market stocks reached a low in dollar terms a few weeks after the Russian default. Within 18 months they had doubled.

Australian pensions

Not so super

SYDNEY

A much-lauded private-pension system comes under scrutiny

PAUL KEATING, a former prime minister of Australia, calls the country's superannuation system "the envy of the developed economies". In many ways, it is. The "super", as Aussies call their private-pension provision, was a crowning achievement of Mr Keating's premiership. In 1992 he made it compulsory for employers to set aside 3% of all but the very lowest-income workers' wages. The payment has since crept up to 9.5%, and, by law, will rise further in 2021.

Today 15m working Australians are sitting on a nest-egg for retirement. With assets of about A\$2.6trn (\$1.9trn), their private-pension pot has grown into one of the largest in the world. It is almost universal, which should relieve pressure on the means-tested public-pension system. Australia, in other words, has less reason to panic about supporting retiring baby-boomers than most other countries.

Yet pride is not the only emotion the system evokes. In December 2017, prompted by a spate of banking scandals, the government set up a royal commission to investigate malpractice in the financial sector. In the past two weeks it has been hearing evidence on the super industry, and the results have not been pretty.

Most complaints relate to how funds run by big banks and asset managers administer the money. These hold about a third of all pension assets (industry, government and corporate funds account for

the rest). As the commission was told, funds' trustees are "surrounded by temptation" to prioritise their profits over members' interests. "It's hopelessly conflicted," lamented Michael Hodge, a lawyer for the inquiry.

Australians pay far more for pensions than their peers in other rich countries. In 2014 the Grattan Institute, a think-tank, calculated that fees were more than three times the median for the OECD, a group of mostly rich countries. Administration fees have been falling, yet funds still cream off A\$30bn annually, not far off what the country spends on defence. The institute reckons the average 30-year-old Australian will lose about A\$250,000, or a quarter of their total balance, in fees before they retire. At such a price, you might hope for juicy investment returns. Yet the reverse is true: the dearest funds tend to do badly for their members, partly because earnings are eaten away by charges. "As a population," says John Daley, Grattan's chief executive, "we are being taken for a ride."

One issue is that job-hopping workers accrue new supers, and often forget to merge them. About a third of all accounts, 10m in total, are such "unintended multiples". Each super charges fees and tacks on life- and disability-insurance policies, often without employees knowing. Research by the Productivity Commission, which advises the government, finds that Australians pay A\$1.9bn a year in excess insurance premiums.

The inquiry has exposed more egregious rip-offs. National Australia Bank, one of the country's big lenders, is already paying over A\$100m to compensate savers who paid for advice they never received. It also emerged that the bank charged for services rendered to members who were dead. Another lender, Commonwealth Bank of Australia, was revealed in April to have made similar charges. This week the inquiry heard it had been too slow to transfer members to cheaper funds.

Cosiness between funds and the banks that control them is another problem. One report found that almost 80% of their trustee-board directors hold positions in related financial institutions. Another suggests that big lenders pay out returns on simple cash investments that are a fraction of the market rate.

The commission will issue a final report in February. It may follow the Productivity Commission and recommend that savings should be injected by default into one of several "best in show" funds. These would be judged on long-term returns, fees and advice, and revised every four years by an independent panel. Others draw a different conclusion: they want to give workers more access to their money if they buy a house or return to university. Whatever happens, the super industry has lost some of its shine. ■



Litigation finance

Appealing returns

NEW YORK

Third-party funding for lawsuits attracts investors and lawyers alike

CONTINGENT fees, in which clients pay lawyers only if a case is won, have long been a feature of America's legal system. Many other countries used to bar them, wary of importing America's ambulance-chasing culture. But a belated acceptance of their benefits means they are now widely allowed. "No-win, no-fee" arrangements help shift risks from parties to a suit to their lawyers, and make it less likely that a would-be plaintiff decides not to press a strong case for fear of a big financial loss.

Around a decade ago, some lawyers took the principle of risk-shifting further. They accepted money from third parties to fund cases in exchange for some of the winnings. Litigation finance has since taken off. Fortune 500 companies and New York's elite law firms increasingly tap outside capital when pursuing multi-million-dollar suits.

Funds that invest in litigation are on the rise. In the past 18 months some 30 have launched; over \$2bn has been raised. Last year Burford Capital, an industry heavyweight, put \$1.3bn into cases—more than triple the amount it deployed in 2016. Lee Drucker of Lake Whillans, a firm that funds lawsuits, says he gets calls weekly from institutional investors seeking an asset uncorrelated with the rest of the market—payouts from lawsuits bear no relation to interest-rate rises or stockmarket swings.

Such outside funding does not just enable plaintiffs to pursue potentially lucrative cases. It also allows law firms to hedge risk. Some clients, worried about the mis- ▶▶



High fees down under

aligned incentives caused by law firms' sky-high hourly rates, insist on partial or full contingency-payment schemes. Outside funding lets firms recoup some revenue even if they do not win a case. "Firms that lose are still going to take a bath," says Nicholas Kajon of Stevens & Lee. "But the write-off won't be quite as bad."

Returns are usually a multiple of the investment or a percentage of the settlement, or some combination of the two. Funders of a winning suit can expect to double, triple or quadruple their money. Cases that

are up for appeal, where the timespan is short—usually 18-24 months—and the chance of a loss slimmer, offer lower returns. New cases that are expected to take years offer higher potential payouts.

A maturing market means more sophisticated offerings. To spread risk, funders are bundling cases into portfolios and taking a share of the proceeds. Last year Burford ploughed \$726m into portfolio deals, compared with \$72m into stand-alone suits.

As funders compete for high-quality investments, opportunities in new markets

arise. Bentham IMF, a litigation funder based in New York, has joined Kobre & Kim, a law firm, to set up a \$30m fund for Israeli startups to pursue claims against multinationals—for example, over trade-secret violations. A burgeoning secondary market is likely to develop further, allowing investors to cash out before long-running suits are closed. Burford recently sold its stake in an arbitration case concerning two Argentine airlines for a return of 736%. Such mouth-watering profits should keep luring capital into the courtroom. ■

Innovation in insurance

Icing on the cake

NEW YORK

Life-insurance policies that bake in ancillary services arrive in America

PEOPLE only contact their insurers when things go wrong and they need to make a claim. This generally means losses for the insurer. It also means stress and hassle for the customer. In order to mitigate both problems, insurers increasingly offer extra services alongside their bog-standard policies.

Aviva, a British insurer, for instance, installs sensors on customers' water pipes to detect even minuscule leaks, so that these can be repaired before causing greater damage. This spares Aviva the cost of a bigger claim, and the client the misery of a flooded basement. Other benefits are intended mainly to foster customer loyalty. Porto Seguro, a Brazilian insurer, offers access to locksmiths, electricians and taxi services.

Life insurers have so far been slower to catch on. But that is changing. Often ancillary services nudge people to live more healthily. AXA, a French insurer, gives its customers access to check-ups. Union Life, a Chinese one, guarantees policyholders a place in an old people's home and advises them on activities in retirement. Desjardins, a Canadian insurer, offers advice during treatment and recovery from illness.

On August 15th Haven Life, an American life-insurance agency and a subsidiary of MassMutual, an insurer, announced it would include a set of ancillary benefits for its customers. That makes it a pioneer in its home market.

Haven Life's new perks fit neatly into the global trend. Its ancillary benefits centre on health and planning for death. A digital service for compiling a will, and online storage for important documents, are included. Policyholders also get discounts on family-health services at some clinics, and access to a genetic health test. Yaron Ben-Zvi, the firm's boss, says the initiative is squarely meant to increase customer loyalty.



A few rivals dangle the odd optional extra. Ladder, a life-insurance startup, offers some help on financial planning through an online tool. State Farm, a large American insurer, gives clients a discount on in-home sensors that monitor old people's health. But the MassMutual policies that Haven Life sells are the first in America to offer other services as part of the package.

This is not for lack of demand. A survey by Bain & Company, a consultancy, finds that American consumers have very similar preferences to Australian, British and Chinese ones on the sorts of services they want from life insurers.

But America is not a friendly place for innovative insurers. New policies must be approved by each of its 50 state regulators. Mr Ben-Zvi says that some states' laws are too inflexible, and do not allow for such ancillary benefits. The result is that Haven Life will not initially offer the perks in five states, including Florida and New York, though the firm hopes to make them available nationwide. Even when an offering suits insurers and their customers, it can still take time to spread.

Forensic accounting

Seeking the devil in the details

PALERMO

New software helps uncover Mafia crime masked as ordinary business

FOR an inkling of how hard it is for Italian authorities to identify Mafia activity, consider how mobsters disguise the *pizzo*, or protection payments, they extort. The owner of a business may find that customers have been scared off by a menacing stranger. Within days a mysterious man visits. He may request a regular donation for a poor family, or ask a business to switch to a new supplier. Owners put two and two together, says Daniele Maranano, an anti-Mafia activist in Palermo: "There's no need for further explanations."

Such concealment is more common than in decades past, when payments were often collected monthly in cash. That has made it harder to spot extortion by analysing a business's books, says Antonio Basilicata of the Anti-Mafia Investigation Directorate (DIA) in Rome. But software developed by Crime&tech, a firm in Milan, can still help identify companies with probable Mafia links by crunching financial and operational data.

Crime&tech's software identifies not *pizzo* schemes as such, but firms that may be under *mafioso* control or involved in Mafia crimes such as illegal gambling and trafficking in people, drugs or arms. Its algorithms look at many variables. Businesses with little or no bank financing are more likely to have taken out a Mafia loan. Borrowers who struggle to repay may "convert the debt into stock" held by the Mafia creditor, often behind the smokescreen of a figurehead administrator, says Michele Riccardi of Crime&tech. The software considers the age and sex of a firm's administrators. Those who are old, young or female are more likely to be figureheads.

It also looks for anomalies in payroll and invoice data that may reveal attempts to conceal illicit payments, especially in sectors where Mafia activity is strongest: ►►



The code breaks the silence

► construction, retail, waste removal, food services and transport. A high share of a firm's wealth kept liquid is a red flag.

To create the software Crime&tech analysed police reports, court documents and academic studies, many conducted by researchers at Transcrime, a think-tank at Milan's Catholic University of the Sacred Heart, from which Crime&tech is a spinoff. The team also used data on the roughly 5,000 Mafia-linked firms that have had their assets seized by the authorities in the past 30 years. The result, says Francesco Calderoni, one of Crime&tech's founders, is "an identikit of a Mafia business".

You've been made, man

Analysis by corporate-investigations firms such as Kroll, which is based in New York, is probably still a more accurate way to spot the Mafia's fingerprints. But that can cost more than €1,500 per firm scrutinised. Automation cuts costs dramatically. An early version of Crime&tech's software assessed the "Mafia risk" of some 4,000 firms that placed bids on contracts for Expo 2015, a fair in Milan. The software found probable Mafia links that had hitherto been unknown to the DIA.

Crime&tech's Italian clients include two police forces, two regional government bodies and companies keen to avoid suppliers and contractors affiliated with the Mafia. Crime&tech also licenses its technology to Bureau Van Dijk (BVD), a subsidiary of Moody's, a credit agency. Demand is brisk, BVD's Milan office reports, with intelligence agencies and tax authorities among those using the service.

Other firms are developing similar products. Consorzio CBI, a research outfit in Rome funded by Italian banks, is improving software that tries to sniff out Mafia connections by looking for clues such as atypical transfers between a firm's departments. In an effort to curb Mafia involvement in public contracts, Italy's finance ministry is using the software to keep an eye on more than 10,000 bank accounts. Computer says no, mafioso. ■

Tax breaks in Africa

Slipping through the net

KAMPALA

African governments let too many taxpayers off the hook

TAX collection in Africa resembles an exasperating fishing expedition, in which the big fish wriggle into tax havens and the tiddlers hide in the informal sector. It is made even harder by a self-inflicted problem. Governments give out a range of exemptions, thereby poking holes in their own nets.

Consider "tax expenditures", a measure of the revenue lost by deviations from usual tax rates. Taxmen in Kenya and Uganda let about 5% of GDP slip through their fingers in this way, according to the World Bank. In the few African countries where data are available, governments forgo revenues worth a third of those they actually collect. The cost is felt in crowded classrooms and on rutted roads.

Not all that money should, or could, be recouped. The figures include concessions for items like textbooks and medicines. And not every tax expenditure is a giveaway, argues Maya Forstater of the Centre for Global Development, a think-tank. For example, firms that export goods or import capital equipment may be entitled to value-added-tax refunds, but the process can be so unworkable that some governments just grant exemptions instead.

The full range of tax breaks is bewildering, however. Incoming foreign aid, from the salaries of consultants to the fees collected by subcontractors, is often tax-exempt. Special economic zones are popping up like volcanic islands, forming a low-tax archipelago that stretches across the continent. In Ghana a single factory can be declared a "free zone", which entitles it to a ten-year tax holiday and exemptions on

import duties. Rwanda gives a corporate-tax holiday to big investors such as Volkswagen, which has opened a new assembly plant in the country.

Such incentives rarely bring the investment or jobs that are promised, says Ousmane Sonko, a former tax inspector who is now a member of parliament in Senegal. When surveyed, most businesses in African countries say they would have invested even without tax breaks. They tend to rank other factors, such as stability and the cost of raw materials, more highly. Firms congregate in industrial parks for the reliable electricity and decent roads. Paying for these means taxing more, not less.

Meanwhile ordinary citizens often foot the bill, argues Jason Braganza of Tax Justice Network Africa, a campaign group. Uganda, for example, has slapped new levies on cooking oil, mobile money and even social media—all measures approved by politicians who have exempted their own allowances from tax.

Some governments see tax breaks as a tool of industrial policy, East Asian-style. Others dish out goodies to reward allies or create political leverage, says Mick Moore of the International Centre for Tax and Development. Tax expenditures come under less scrutiny than conventional spending. In four-fifths of sub-Saharan African countries, for example, governments have the discretion to negotiate bespoke tax breaks with individual companies. Businesses lobby hard against any tightening of rules.

Mounting debt may be the one thing that forces a rethink. Median public-debt levels in the region are over 50% of GDP, up from 30% in 2012. The IMF and World Bank are urging governments to close up fiscal holes. So too are civil-society groups. Some countries, such as Ghana, are trying to streamline exemptions. A good place to start would be to audit tax breaks and strip away the most indulgent. Those that remain should be temporary and transparent. Taxmen will catch more fish with stronger nets. ■



A stitch in time

Free exchange | When the levy breaks

Dismal scientists seek cannier ways to make carbon taxes palatable

ECONOMISTS view pricing greenhouse-gas emissions as an elegant way to reduce them. There are more than 70 national and regional schemes, covering perhaps a fifth of global emissions, which charge polluters for the carbon dioxide they belch out. But that leaves an awful lot of the world to be convinced of the merits of such schemes. Sceptics point to the lacklustre decarbonisation record of places that already price carbon. Higher charges would help; but then the politics also has to add up.

Governments have two ways to price carbon. They can levy a tax on each tonne of CO₂ emitted, an approach pioneered by Finland in 1990. Or they can issue a fixed number of pollution permits to companies, which can then trade the permits with others. The European Union (EU), a handful of American states and, starting this year, China have opted for some version of this “cap-and-trade” approach. These schemes have tended to be limited to a few carbon-intensive industries, such as power generation, oil-refining and steel- and cement-making.

A new IMF working paper by Ian Parry, Victor Mylonas and Nate Vernon finds that taxes raise around twice as much revenue as today’s cap-and-trade schemes, and are roughly 50% better at cutting emissions (see chart). A levy of \$70 on each tonne of CO₂ by 2030 would typically raise between 1% and 2.5% of GDP in the G20 club of big economies. It would also allow most to come close to, or even exceed, their pledges under the Paris climate agreement of 2015, which aims to keep global temperatures no more than 1°C or so hotter than today. Researchers from the Potsdam Institute and the Mercator Institute find that if developing countries were to replace fuel subsidies with carbon taxes consistent with the Paris target, the windfall would cover much—95% in India’s case—of what they must spend on infrastructure and public services to meet the UN’s sustainable-development goals.

Politicians scoff at such hypotheticals. They are loth to upset voters, who dislike taxes, or powerful lobbies in industries that would be hardest hit. So cap-and-trade schemes, which can issue new permits to depress prices, outnumber tax-based ones. The taxes that exist tend to be symbolic. As a result, merely 1% of the emissions covered by both pricing schemes fetch more than \$40 per tonne of CO₂. That is the lower limit of the \$40-80 range that a World Bank-backed committee chaired by Joseph Stiglitz and Lord Nicholas Stern, two economists, considers necessary by 2020 to stay on track for the Paris goal. Existing programmes have barely dented global emissions, which ticked up again last year.

Nor do they raise a lot of cash: \$30bn annually worldwide. Three-quarters of covered emissions are priced under \$10 per tonne.

As a result, carbon prices have not been high enough to drive real changes in behaviour. The price in the EU’s carbon market more than doubled to €18 (\$20) this year, after plans to remove excess permits were announced. But forecasts still put it below Messrs Stiglitz’s and Stern’s band. In 2013 Britain introduced an additional levy on top of the EU carbon price that was meant to increase every year. But it has since frozen the fee until 2021. Policies that increase energy bills are rarely popular.

And taxes that appear high may in practice have little bite. Sweden’s rates in excess of Skr1,000 (\$108) per tonne favour the climate-friendly hydro and nuclear power plants that already produce much of its electricity. True, car emissions are lower than they would have been in the absence of the tax—by 11% in an average year, according to one study. But they have dipped by only 4% since the tax was introduced in 1991. Taxes might stem growth in emissions, but they do not foster deep decarbonisation, observes Michael Mehling of the Massachusetts Institute of Technology. Unless, that is, they get much higher.

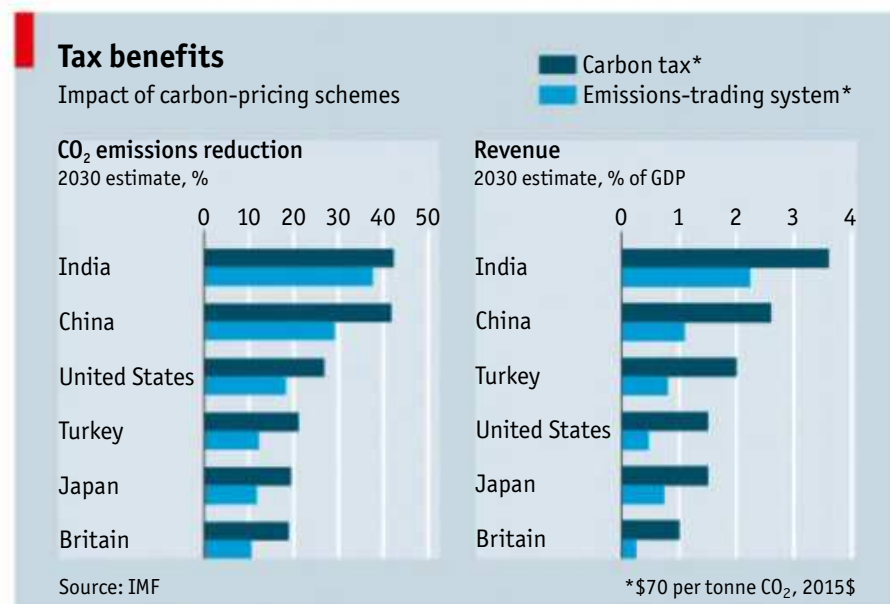
Tax and spend

How, though, to make high taxes palatable? Labels help. Behavioural economists have discovered that one way to make taxes acceptable is to rebrand them as “fees” or “contributions”. Alberta, in Canada, and Switzerland call their taxes “levies”. A more substantive approach is to return the money raised to citizens or affected businesses. Switzerland’s programme doles out two-thirds of its receipts to households—Sfr68 (\$68) for each citizen last year—and to firms. The rest goes towards green investments, such as renewable power. This builds public support and makes it hard for a future government to reverse course.

It also makes a typically regressive tax more equitable. Anders Fremstad of Colorado State University and Mark Paul of Duke University calculate that taxing a tonne of CO₂ at \$49 would leave 59% of Americans worse off, including 75% of the bottom half, if the revenue were used to lower personal-income taxes. By contrast, recycling the receipts as lump-sum payments would leave 89% of the bottom half with an average net gain of \$788.

Democrat-controlled state legislatures in California and Massachusetts are debating such “fee and dividend” measures. A group of Republican grandees, including two former secretaries of state, are recommending a similar proposal to their climate-change-sceptical party. A new paper co-written by Lord Stern and pointedly entitled “Making carbon pricing work for citizens” singles it out as the best choice in most circumstances.

Other options exist. The Republican plan also includes duties on dirty imports and tax credits for clean exports, to support businesses that face competition from high-carbon jurisdictions. Mr Mehling reckons such border adjustments may be legal; World Trade Organisation anti-discrimination rules favour products that are “necessary to protect human, animal or plant life or health”. Calculating the carbon footprint of products would be tricky but not impossible. A trade partner’s industry average could serve as a benchmark for duties or credits, unless an exporter there can demonstrate that its wares use less carbon; developing countries could be cut some slack. This is one race to the bottom even environmentalists would welcome. ■



Sources for this story can be found at [Economist.com/carbon2018](https://www.economist.com/carbon2018)



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Construction technology

A bridge too far

Crumbling infrastructure worries civil engineers

THE first bridges were likely to have been built by early man shoving a fallen tree across a stream. Since then, construction techniques have come on a bit—from wood to stone, wrought iron and then steel. In the 20th century, reinforced concrete appeared. Concrete is an immensely strong material, especially when coupled with steel. But the sudden collapse of the Morandi bridge in Genoa this week (pictured above), with a tragic loss of life, adds to the concern of civil engineers that many bridges around the world which use reinforced concrete are deteriorating faster than was expected.

The Genoa bridge is based on a design called a cable-stayed bridge, although it is a somewhat unusual variant. Such a bridge uses one or more towers, from which run cables that support the deck of the bridge. This is different from a suspension bridge, such as the Golden Gate Bridge in San Francisco, in which the cables holding up the deck are suspended vertically from a main cable anchored at either end of the bridge. Cable-stayed bridges are widely used, mainly for spans shorter than those crossed in one go by a suspension bridge.

A familiar feature of a cable-stayed bridge is that the cables form a fan-like pattern emanating from the supporting tower. If one of the cables is damaged or breaks, it should be obvious; the loading on the

bridge is calculated so that the remaining cables will be capable of holding the structure up. The Morandi bridge is different because it was supported by pre-stressed concrete tendons. The tendons are made from bundles of steel wires tightened to produce compressive strength and then encased in concrete. The bridge was designed by Riccardo Morandi, a proponent of this type of bridge. Only a few have been built around the world.

Concerns about Genoa's bridge had been raised in the past. The Italian media has reported that in 2016, Antonio Brenich, a specialist in reinforced concrete at the University of Genoa, described the bridge as a "failure of engineering" and that sooner or later it would have to be replaced. Daniele Zonta, a civil-engineering expert at the University of Strathclyde, in Britain, says that since the opening of the bridge in 1967 the tendons have required continuous monitoring and maintenance.

Although the design of the bridge is unusual, it is much too early to say if that played any fundamental part in the collapse. And in other respects, the Morandi bridge is far from atypical. All around the world bridges built long ago, particularly those using reinforced concrete, are deteriorating. Even back in 1999, a study found that around 30% of road bridges in Europe had some sort of defect, particularly corro-

sion of their steel reinforcing or pre-stressed tendons.

A report from the American Road & Transportation Builders Association in January is even more sobering. It reckoned that 54,259 of that country's 612,677 bridges are "structurally deficient". These problem bridges have an average age of 67 years and are crossed by vehicles 174m times every day. At the present rate of repair and replacement, it will take 37 years to remedy all the problems, says Alison Premo Black, the organisation's chief economist.

What is going wrong with these bridges? The difficulty is that concrete, or rather the steel used to reinforce it, can fail in a number of ways. Salt, ice and the pounding of weather can cause tiny fractures in the concrete's surface. As these cracks creep inward, they let in water. Once the water reaches the steel reinforcing or tendons, it corrodes them. This enlarges the cracks, which can cause the concrete to fall apart. That this is happening is evident from rusty streaks on crumbling concrete.

Heavy traffic

Other factors compound the deterioration of bridges, such as a constant cyclic vibration from traffic, says Mehdi Kashani, an expert in structural mechanics at the University of Southampton, in Britain. This is troublesome for bridges designed in the 1960s, when traffic flows were lower, cars were smaller and lorries much lighter. On top of that, extreme weather can take a toll, with heat and cold expanding and contracting the structure, floods eroding away foundations and high winds buffeting the bridge. This is why regular inspections and maintenance are essential.

New methods of monitoring structures are available to help engineers spot pro- ▶▶

blems before they become critical. Instead of the arduous task of climbing up bridges or erecting scaffolding, camera drones can easily take a close-up picture of just about any part of a bridge. Electronic sensors can provide regular readings of any movement in the structure. And laser scanners are capable of picking up fine details and displaying them as a three-dimensional image. All this should help, but only if regimes exist to ensure that careful monitoring and preventive maintenance take place. If such tasks are skipped, for whatever reason, the result could be disaster. "The Genoa bridge is not the first to fall down," says Dr Kashani. "And unfortunately it will not be the last."

Repair or replace?

Monitoring and repair are not the only options. When bridges were being built in the 1950s, 60s and 70s, many were expected to last for more than 100 years. But the decay of reinforced concrete leads some civil engineers to think that such bridges may have a life of only 50-60 years. That means thousands of bridges are coming to the end of their days. Refurbishment is possible, but it is slow and very costly. It might end up being more expensive than building a new bridge.

New structures can also take advantage of advances in engineering. There has been huge progress in materials science, so much so that it is now possible to tinker with the internal structure of substances to make concrete more robust and steel better at resisting rust. Ultra-high-performance concrete is already being made in some countries to toughen buildings against such things as earthquakes and bombs. Apart from just sand and cement, other ingredients are added to these super concretes, such as quartz and various reinforcing materials. In some tests, the addition of plant fibres has been shown to produce markedly stronger concrete.

Self-healing concrete is also being explored. Different methods can be used, but the basic idea is that, should cracks appear in the surface, they will trigger a chemical reaction that seals them up again.

Wholesale replacement of elderly bridges would be an expensive exercise, however. The Governor Mario M Cuomo Bridge, which opened as a replacement for the old Tappan Zee Bridge which crosses the Hudson River in New York, is expected to become fully operational later this year. It is also a cable-stayed bridge, but one of a more traditional design. It is expected to cost some \$4bn. The old bridge, built largely from steel and concrete in the 1950s, was knocked up for some \$60m, which in today's terms would be a bargain \$564m. The Tappan Zee Bridge was predicted to have a lifetime of only 50 years; it managed nearly 62. Its replacement is supposed to last for a century. Time will tell. ■

Archaeology

A dead parrot story

Evidence of early native American parrot breeding

BETWEEN 900 and 1200 a group of native Americans lived in Chaco Canyon, in what is now north-western New Mexico. They were part of the peoples known as the Ancestral Pueblo. They traded extensively with communities in the distant south: items such as cocoa beans, copper bells and jewellery made from marine shells have been found in Pueblo Bonito, a multi-storey great house in the canyon with over 600 rooms. But none of these remains have presented archaeologists with more of a quandary than the parrots.

The bones of 35 scarlet macaws have been excavated from various sites in the area. Birds play an important role in native American mythology, and parrots became part of the culture of some groups. Parrots were kept as pets and their feathers were highly prized. But since the nearest natural population of these birds is—and was—some 2,000km away, the question has been how so many of these parrots could have ended up in this canyon.

Archaeologists have known that the breeding of macaws began at Paquimé, near the modern-day city of Chihuahua, in Mexico, because the site has dozens of preserved egg shells and the skeletal remains of several hundred birds. But that was in about 1250, long after the parrots first turned up in Pueblo Bonito.

In those ancient times the people of the American south-west had no horses, wagons or waterways to connect them to the distant regions of south-eastern Mexico

where wild scarlet macaws are found. Archaeologists had presumed that these birds were brought by traders on foot across the desert that makes up much of the centre of Mexico. Doubtful that many macaws would survive such a treacherous journey, however, Douglas Kennett of Pennsylvania State University and Stephen Plog of the University of Virginia collaborated with a group of colleagues to see if there were any genetic clues in the parrots' remains.

The researchers collected DNA samples from the bones of the Chaco Canyon birds, along with a smaller sample of contemporary macaw bones from the Mimbres region in southern New Mexico. In total, they were able fully to reconstruct the mitochondrial genomes of 14 macaws. Surprisingly, they found an exceptionally low genetic diversity between the birds. As they report in *Proceedings of the National Academy of Sciences* this week, all of the macaws that lived in the Chaco Canyon region between 900 and 1200 were very closely related to one another.

Not stunned

Although it is possible that a small population living along the very northern natural range of macaws was visited by traders collecting birds, and that this resulted in the parrots of Chaco Canyon all being relatives of one another, it is something that the researchers believe to be extremely unlikely. Their alternative theory is that a few macaws were carefully nurtured during the arduous trek across central Mexico and then used to establish a breeding programme somewhere in the south-western United States or northern Mexico long before Paquimé got in on the act. Where that earliest of breeding colonies might have been remains a mystery, but that it might have existed at all is further testament to how treasured parrots were. ■



Were you from the canyon?

The wheat genome

Breaking bread

Revealing the wheat genome could lead to hypoallergenic bread

ONE of the most surprising things about the announcement this week that the genome of wheat has been fully mapped is how long it has taken. As well as the human genome, a draft of which was completed in 2000, scientists have tackled everything from rice to the clearhead icefish and the black cottonwood tree. The world's most widely cultivated crop has taken all this time because it was really difficult; the "Mount Everest" of plant genetics, according to some.

That difficulty arises from the fact that wheat is not one genome but three overlapping and similar ones, the result of natural hybridisation. It is more than five times the size of the human genome and comprises some 107,000 genes (humans have about 24,000). Genomes are generally figured out by breaking them into smaller pieces, sequencing those pieces and then working out how they fit together. With so many similar-looking sequences, the international team of researchers, whose findings were reported in *Science* and whose efforts focused on a variety of bread wheat called Chinese Spring, had a huge job on their hands.

Their achievement comes at an opportune time. Humans have been tinkering with wheat for almost 10,000 years, but new tools are becoming available for the precise manipulation of genomes. Gene-editing using a technique called CRISPR, along with a fully annotated genetic sequence, promises a new era in wheat cultivation, introducing traits to improve yields, provide greater pest resistance and to develop hardier varieties.

Of particular interest will be how decoding the genes might contribute to understanding, and perhaps even mitigating, various immune diseases and allergies associated with eating bread. This possibility is explored by Angela Juhász of Murdoch University, in Western Australia, and her colleagues in an associated paper in *Science Advances*.

Coeliac disease, for instance, is an immune reaction to eating gluten; the related genes are the glutenins and gliadins that are expressed in the starchy endosperm of the wheat grain. A different set of allergens, including amylase trypsin inhibitors found in a thin layer of cells that surround the endosperm, are implicated in an illness called baker's asthma; these could be of concern to people who suffer non-coeliac wheat sensitivity.

Ancient plants

Enduring relationship

Me and my beetle

CYCADS look the part of foliage on a "Jurassic Park" film set for a reason. The plants are indeed very ancient. They evolved during the Permian period, millions of years before the first dinosaurs existed. Although classified in the same group as conifers, cycads do not release their pollen into the wind like the rest of their kin. Instead, each species of cycad that remains today relies on a specific type of beetle for pollination. This is unusual for a non-flowering plant like the cycad, and has left palaeobotan-

ists curious about how long the plants have relied upon this method. The answer, it seems, is just about for ever.

According to a study by Chenyang Cai of the University of Bristol, in Britain, reported in *Current Biology* this week, cycads have been luring beetles to do their bidding for nearly 100m years. Dr Cai has found the evidence in a fossil. Seeing two organisms interacting with one another in a fossil is remarkably rare; it usually involves finding the teeth of a predator lodged in the bones of prey. So it was particularly exciting for Dr Cai when he spotted cycad pollen fossilised alongside a 2mm-long beetle found in northern Myanmar (pictured).

The beetle died 99m years ago, when it got trapped inside sticky tree sap. This sap eventually hardened into amber around the insect and preserved its corpse in pristine condition. Since the amber is clear, Dr Cai and his colleagues have been able to study the beetle and the other material that got lodged in the sap. Their analysis revealed not just the cycad pollen but also that the bug belongs to the family *Boganiidae*, of which cycad-pollinating beetles are a part.

Crucially, the beetle has cavities just below its jaw filled with tiny hardened hairs that are used by these insects today to feed upon and transport cycad pollen. In the face of the fierce competition brought about by the evolution of flowering plants, the asteroid impact that did in the dinosaurs, the rise of mammals and numerous ice ages, cycads seem to have come up with a reproductive plan and stuck to it steadfastly.



Evidence in amber

One possibility is using diagnostic techniques to identify wheat varieties that contain gluten which is easier to digest, says Rudi Appels, another of the associated paper's authors. Normally the gut can break down the large proteins found in gluten, but when this process fails and those proteins arrive in the lower gut they interact with the gut's membrane and cause immune problems. In the future, says Dr Appels, wheat might also be fine-tuned to be less allergenic. This might be done by editing the wheat genome so that it contains more digestible proteins.

Those who have trouble with gluten may find, however, that the source of their problem lies more in the processing of bread rather than the genetics of wheat. Dr Appels says that many commercial bakers use processes that eliminate part of the tra-

ditional fermentation stage in making bread. And his guess is that this fermentation would have broken up the problematic proteins into smaller and more digestible pieces. This might explain why some coeliacs (and, indeed, some others who complain that bread is indigestible) can happily eat sourdough bread, which is still made using traditional methods.

It also seems that non-coeliac wheat sensitivity might not be due to gluten at all, but a poorly absorbed carbohydrate component of wheat: fructans and galacto-oligosaccharides, along with another allergen, the amylase trypsin inhibitors which are implicated in activating the innate immune system. Again, fermented bread may have fewer of these hard-to-digest bits. Now that scientists have the genome, such theories should be easier to prove. ■



Creativity and censorship in Turkey

The art of survival

ISTANBUL

Recep Tayyip Erdogan wants Turkish artists to be more docile. But artistic freedom is hard to crush

TURKEY'S president often complains that the one area of national life on which his conservative, Islamist-rooted government has not made a permanent mark is culture and the arts. Earlier this year, standing inside the Hagia Sophia—a Byzantine basilica converted into a mosque by the Ottomans and then into a museum by modern Turkey's secular founders—Recep Tayyip Erdogan made his case for an art that evoked his country's religious and imperial lineage, as well as its modern ambitions.

For many years, the president said, the arts in Turkey had been hostage “to a mentality that was more Western than the West, at odds with the nation's values, and unaware of the rich heritage left behind by our ancestors.” The secular establishment, which Mr Erdogan has helped to depose over the past decade, would no longer monopolise Turkish culture, he promised, nor look down on artists who supported his government. The sentiment fitted the occasion—the launch of a festival in Istanbul dedicated to Ottoman and Islamic arts and crafts. The work on display ranged from calligraphy to ceramics and miniature

painting, some of it inventive and some dreadfully kitsch, and practically all of it stripped of political content. The show's motto, seemingly aimed at the government's religious and nationalist constituency, was: “You too have your art”.

A few years can feel like a lifetime in Istanbul. Only a decade ago, the city was fast becoming the hip new darling of the art world. Sales were booming, galleries mushrooming, and foreign collectors and artists pouring in. Several private contemporary-art museums opened. Mr Erdogan's administration, having won over many Turkish liberals by promising democratic reforms and opening accession talks with the European Union, seemed pleased. Artists began to confront social and historical taboos, including the plight of the country's religious and ethnic minorities, with renewed confidence.

After the fall

The first Istanbul art biennale, held in 1987, had reputedly attracted 10,000 visitors. By 2013 attendance reached over 330,000. The gradual erosion of democracy in the early years of Mr Erdogan's rule, including the

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Johnson will return next week

arrests of hundreds of army officers and other secularists on bogus charges, did not dampen the mood. Gallery owners such as Haldun Dostoglu, a veteran of the local scene, could hardly believe their eyes. “Things I could not imagine were happening,” he says. “Tate Modern was knocking on my door. Istanbul was becoming a magnet for Europe.”

Things began to unravel in the summer of 2013. Demonstrations against breakneck urban development, which snowballed into mass anti-government protests, were met with force; Mr Erdogan accused foreign powers of plotting his overthrow. More chaos ensued, including a corruption scandal and a string of terror attacks. A coup attempt in 2016 resulted in over 250 deaths, and was followed by tens of thousands of arrests, mass purges and a surge in nationalist rhetoric. Istanbul's image was badly tarnished. The number of foreign visitors to the biennale plummeted, says Mr Dostoglu.

Money began to dry up. According to one study, some 12,000 millionaires, including several big collectors, have recently left Turkey. A currency crisis that has ►►

seen the Turkish lira lose about 40% of its value against the dollar since the start of this year is bound to force others to tighten their belts. Sales have dropped, and some of the biggest galleries have closed.

Promising artists have decamped too. Many no longer see a future for themselves in Turkey; scores have moved abroad, especially to Berlin, now home to a thriving Turkish art scene. And, like other public figures and intellectuals, those who have stayed must contend with the caprices and risks of authoritarianism.

Critical artists, especially those who took part in the protests of 2013, have come under increasing fire from the president and his ministers. Ali Kasma, a video artist interested in the relationship between labour, culture and the human body, represented Turkey at the Venice Biennale in 2013. "In the eyes of the state," he says, "Western-oriented, progressive and free-thinking people have all become suspect."

Some have been imprisoned. Zehra Dogan, a Kurdish painter, was sentenced to nearly three years last year for her depiction of a town destroyed in clashes between Turkish troops and Kurdish insurgents. The painting, in which Ms Dogan reimagined army vehicles as scorpions (see previous page), was judged to be terrorist propaganda. Osman Kavala, a popular entrepreneur and arts patron arrested after a smear campaign in the pro-government media, has spent ten months behind bars. Artefacts have been impounded as well as people. An Istanbul municipality removed a statue of the word "Kostantiniyye", a reference to the city's former name, after protests by a handful of Islamists.

The arrests, plus a state of emergency declared after the attempted coup and lifted only this summer, have had a chilling effect. Artists have become more cautious, as have galleries and collectors. As a result, much of the work emerging from Turkey today is decorative rather than provocative. "You go to the big shows", says Sena, an independent feminist artist, "and it's as if there's nothing happening in this country." A gallery owner says he is anxious about displaying a piece featuring a nude woman at an upcoming fair. "Five years ago, I would never get nervous about criticising Erdogan, the army or the police," says Hasan Ozgur Top, a young artist. "Now I have to think twice, or three times, about the price I might have to pay."

Yet there are still reasons for optimism. Artists who made a name for themselves during the boom of the early 2000s, such as Mr Kasma, Taner Ceylan and Banu Cennetoglu, have shone on the international stage. Some of the wealthiest Istanbul families continue to make it their mission to support Turkish art. The number of younger collectors is growing, and domestic attendance at festivals remains high. And the waves of censorship and nationalist pro-

paganda have had a less devastating impact on contemporary art than on Turkish journalism and popular culture. Some subversive, politically charged work is still being created. Mr Top—whose recent pieces include a video depicting the pedlars who sell Turkish flags at political rallies and businesses that produce them en masse—and others like him have not been cowed.

"The art world is a much freer space compared to other areas of expression," reckons Beral Madra, a well-known critic and curator. One reason is that the visual arts in Turkey have always depended less on state support than on the private sector. Another is that, being more diffuse and lower profile, they are intrinsically harder to police than newspapers, television and cinema. Taming the art scene will be tougher than Mr Erdogan thinks. ■

Surviving Russian history

Tale of the century

The Shoemaker and His Daughter. By Conor O'Clery. *Doubleday Ireland*; 384 pages; £14.99

RUSSIA demands to be written about. Journalists posted to Frankfurt or Brussels rarely take a year off to tell the country's back-story over 350 pages, but Moscow correspondents find the prospect hard to resist. Conor O'Clery of the *Irish Times* is the latest to grapple with Russia's tumultuous recent past, but he does it in an unusual way. "The Shoemaker and His Daughter" is the story of his wife's relatives, and how they survived the savagery of the Russian 20th century—the wars, the reforms, the crashes, the revolutions.

Mr O'Clery is not the first person to recount Russia's history through the micro-

cosm of individual lives, but his unique access to his in-laws gives him material other writers have lacked, which in turn fills his book with a warmth and generosity that are captivating. He opens with a winter trip to Transylvania with his wife's mother, on a hunt for her father's grave. Lieutenant Nerses Gukasyan was killed in the second world war, when she was five; it was not until 2002 that she discovered where exactly he had been buried. After a long trek into snowy forests, they find him at last: one of 1,236 Soviet servicemen lying together beneath a concrete obelisk.

As a scene-setter, the vignette is apposite. Individual loss meets official indifference; personal sacrifice meets the immensity of history. After this opening Mr O'Clery withdraws, leaving the stage to his in-laws, and a tale made extraordinary by its sheer unremarkableness. Every Russian family, no matter how apparently ordinary, has lived through enough upheavals to fill a book. What befell Mr O'Clery's relatives also happened to millions of others, in an age of collective suffering and survival that defies comprehension.

The story proper begins in Nagorno-Karabakh, where the Gukasyan family, ethnic Armenians, do well in the Communist Party; it moves on to Grozny, in Chechnya, where they hold a secure place in the Soviet middle class, thanks to their ideological reliability, sobriety and hard work. Yet whenever they look like finally making a success of themselves, their lives are invariably shattered. An unfortunate decision to sell a car outside the official channels leads to a prison term, and relocation to Siberia to escape the shame. Through dedication and focus the family re-establishes itself, but it still takes Mr O'Clery's father-in-law—the shoemaker of the title—13 years to get back in a position where he can own a car again.

This is not a book about heroic dissidents or murderous fanatics, but about everyday people trying to navigate a system that frustrates them yet provides them with priceless opportunities. "In the Siberia of the 1980s, a city-dweller can spend the day in a mad search for sausage and the evening listening to a sublime piano recital by Svyatoslav Richter," Mr O'Clery writes. Then the family's lives are destroyed once more, when their hard-earned savings are inflated to nothing by post-Soviet "shock therapy", and thugs arise to fill the space vacated by the party.

"The Shoemaker and His Daughter" does not purport to take readers inside Josef Stalin's mind, nor to reveal the mysteries of Vladimir Putin's modern kleptocracy, but it will give them a new respect for the people who have endured the Kremlin's many experiments. It is enchantingly written, thoughtfully structured and a model for all the other journalists who pass through Moscow. ■



The price of a car



America's warriors

No off button

The Fighters: Americans in Combat in Afghanistan and Iraq. By C.J. Chivers.
Simon & Schuster; 374 pages; \$28 and £20

“WE’RE here because we’re here. We’re here because another unit came here and set up, and we replaced them, and no one knows what else to do.” Such was Specialist Robert Soto’s summation of America’s military strategy in the Korengal Valley in Afghanistan—otherwise known as “The Valley of Death”.

Specialist Soto had decided to enlist as a child, when he saw the rubble at Ground Zero in New York. As an FNG (“fucking new guy”) in the Korengal Valley in 2008, life was a far cry from the rhetoric of politicians and strategies of generals. The Taliban could hardly shoot straight. Yet America was not winning.

Some 2m Americans have served in Iraq and Afghanistan since 9/11. C.J. Chivers, a former marine and Pulitzer-winning war correspondent for the *New York Times*, has done as much as any journalist to record and understand those conflicts. In “The Fighters” he picks six individuals to portray the young fighting men who mostly remain unknown to their compatriots.

Readers should not expect an explanation of the complex, violent forces America unleashed in the Muslim world. The enemies are faceless, the wars’ overseers nebulous, distant figures (Mr Chivers regards the grunts as better judges of military

American fiction

Anchors away

A River of Stars. By Vanessa Hua.
Ballantine Books; 304 pages; \$27

ONLY the wealthiest Chinese women make their way to Perfume Bay, a five-star secret compound near Los Angeles for expectant mothers. Here the spoiled wives of Shanghai bosses—all carrying prized male heirs—consume diets rich in superstition (no bananas, which cause babies to slip out early); schedule Caesareans on auspicious dates; and pick English names worthy of their princelings (perhaps Stanley, in honour of Morgan Stanley, or Warren, after Warren Buffett). In time they return home with the ultimate status symbol: a son with American citizenship.

Scarlett Chen, the Chinese heroine of “A River of Stars”, Vanessa Hua’s delightful first novel, is sent to this lavish prison by her married lover, Boss Yeung, who runs the factory in the Pearl River delta which she helps manage. But she flees when she learns that Boss Yeung wants to pay her off and bring up the child himself. She escapes with Daisy, a privileged 17-year-old ABC—American-born Chinese—who is hunting for her own child’s father, a college student who has mysteriously disappeared.

The book follows the two women as they evade Boss Yeung’s detectives and reinvent themselves with their new-born babies in San Francisco’s Chinatown. For Scarlett, America is a land of promises and dreams. She knows that in China the illegitimate child of a single mother would be “second-class in every way”. She lacks the connections to send her offspring to a good Chinese school. And even the most senior women in her factory were expected to serve tea and defer to men at meetings. America has its setbacks, but it is still a land of opportunity. Besides, the French fries smell as “golden as a day at the beach”.

Ms Hua is a breezy, unfussy storyteller and an astute observer. She nicely captures some of the idiosyncrasies of Amer-

ican life as seen through a newcomer’s eyes. Scarlett gawks at frozen Thanksgiving turkeys, “hard and gleaming as the decapitated head of a marble statue”. She delights over her first slider (mini hamburger), noting that nothing signifies wealth and refinement “more than dining on toy-sized food”.

The insights on parenthood are acute. Having a child pushes Scarlett to reconsider her own childhood, and to see her often harsh mother more compassionately. She becomes more aware of the fact that she—that everyone—will die. She had always known this, of course, “but until now, she’d never felt such desolation.” Motherhood has contracted her life, “everything a blur except for a few metres around her, and yet how infinite, how intense the universe now seemed.”

In the end, every narrative thread is tied in a cutesy bow. Yet a novel about foreigners coming to America with stars in their eyes and anchor babies in their wombs is bound to feel timely. Without wading into policy debates, Ms Hua dramatises the stories and contributions of immigrants who believe in grand ideals and strive to live up to them.



The streets of San Francisco

conditions). Nevertheless, these intimate sketches amount to an indictment. For all their bravery, ordinary fighters had little hope of turning official policy into reality on the ground. They were victims of the failures and follies of their superiors; most who served “suffered wounds—physical, psychological, moral, or all three.”

All too often, those sent out to hunt al-Qaeda, the Taliban and America’s other

foes became the hunted. The Pentagon built an archipelago of bases consisting of wooden shacks behind blast walls, but the need to supply them offered perfect opportunities for ambush. The wizardry of drones and night-vision equipment was usually no match for the intelligence the insurgents could gather from countless ordinary eyes. Firepower counted for little against the enemy’s ability to time strikes, ►►

▶ then quietly melt away.

The catchwords of counter-insurgency doctrine—"protect the population"—sounded noble in field manuals. But what if the population did not want America's protection? And how could the grunts possibly win hearts and minds when they spoke no Arabic or Pushtu? The doctrine appeared to work during the surge in Iraq in 2007-08, but Mr Chivers attributes that success mostly to other factors. In short, the military experts in Washington "managed, again and again, to make war look like a bad idea".

The pen-portrait format sometimes creates a jagged narrative. And Mr Chivers offers disappointingly little insight into how things might have been done better, or whether the wars should have been fought at all. But he superbly explains how small units fight, and the impossible gambles young officers must take: send men to search for hidden bombs down "ambush

alley" and risk being shot by snipers, or drive through and risk being blown up.

He captures the idealism of volunteers, the exhilaration of killing the enemy for the first time, the comradeship of men under arms, the agony of loved ones at home and the disorientation of returning to civilian life. His stories are by turn stomach-churning (a marine medic tries to gather his splintered jaw and teeth after being shot in the face) and tender (the girlfriend of one traumatised special-forces soldier throws herself on top of him as he whimpers during a thunderstorm).

These wars, Mr Chivers notes, "seemed to have no off button". When the fighting seems purposeless, why do the servicemen keep going? To stay alive and, above all, to keep their buddies alive: "They looked after themselves, platoon by platoon, squad by squad, truck crew by truck crew, each marine having the other's back, and staying wide of the higher-ups." ■

The Enlightenment's flagship

There were dragons

The story of a voyage that redrew the map—and the ship that completed it

ONE clear moonlit night in June 1770, James Cook ran into yet more proof of how remarkable the newly explored continent of Australia was. Literally: his ship, *Endeavour*, ran aground on the Great Barrier Reef. The next 23 hours were spent bailing water in terror, until finally *Endeavour* slid free. Ship, captain and the intelligence he had gathered returned to England—and a rapturous welcome.

Rarely has a craft been so well named. As Peter Moore shows in his new book, *Endeavour* was more than merely the first English vessel to reach New Zealand and Australia's east coast. She was also a floating laboratory, a vast seed-bank and an international observatory. Along with sails and anchors she carried telescopes, microscopes, two artists and several scientists. *Endeavour* was the spirit of the Enlightenment under sail.

She was also much less elegant than is Mr Moore's immersive account of her life, from acorn to ending. The ideals she came to serve belied her earthy beginnings. Built in Whitby of Yorkshire oak, twisted and hardened by Yorkshire winds, *Endeavour* had been designed to carry not intellectuals but coal. When Australian Aboriginals first saw her, they imagined she was a "big bird" with animals clustering about her wings. Her crew referred to their matronly ship as "Mrs Endeavour".

Yet when Britain decided to seek out

Endeavour: The Ship and the Attitude that Changed the World. By Peter Moore. Chatto & Windus; 432 pages; £20. To be published in America by Farrar, Straus & Giroux next year

Terra Australis, she was the craft chosen for the perilous undertaking. It had been over two millennia since Aristotle discussed the idea of a southern continent in which men would stand with their feet (-podes)

opposite (anti-) those of Europeans. A century before Cook, a Dutch seaman called Abel Tasman had returned with reports of a land whose people were "rough, uncivilised, full of verve". Yet still the bottom-right corner of maps remained indistinct.

It was a tantalising smudge. This was the great age of labels, in which educated men roamed the earth naming and (they felt) taming it. Surveying the world today is like looking at a schoolboy's desk: the scratched names remain, even if many of the boys are forgotten. This enjoyable book breathes life into characters better remembered for their namesakes than themselves: Tasman (Tasmania), Louis Antoine de Bougainville (bougainvillea) and Carl Linnaeus (Linnaean classification).

The Royal Society, the moving spirit behind *Endeavour's* mission, was less concerned with colonisation than with science. Its chief interest was in observing the transit of Venus: by measuring its duration from both hemispheres, the data could be used to accurately calculate the distance of the sun. Botany was a close second. By the summer of 1768 the team had been chosen. On July 30th Cook, his crew and a bumptious young botanist named Joseph Banks left their last London anchorage.

Their triumphant voyage changed the world. Its very map could be redrawn; the sun could be set more securely in the sky and, thanks to Banks's samples, the catalogue of known plants increased by a fifth. The reputation (and in some cases egos) of *Endeavour's* crew swelled similarly. Linnaeus was so impressed by the trip that he gave Banks his own binomial classification, addressing a letter to "Immortalis Banks". Banks was not the sort to demur.

He may be immortal; *Endeavour* was not. She limped on, transporting first food to the Falkland Islands, then troops to the American war of independence, before finally being scuttled off the coast of Newport, Rhode Island, in 1778. ■



Mrs Endeavour takes a break



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Name: MINISTRY OF INFRASTRUCTURE AND ENERGY
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E-mail: liljana.halimi@infrastruktura.gov.al
Web Address: www.infrastruktura.gov.al
- Type of procurement procedure:** "Consultancy service"
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- The reference number of the procedure / lot** _____
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For the year 2018 the available fund 833,333 ALL (eight hundred thirty-three thousand and three hundred and thirty-three) without VAT.
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- Time limit for opening requests for expressions of interest:** 31/08/2018 hours 11.00.

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Economic data

% change on year ago

	Gross domestic product			Industrial production	Consumer prices		Unemployment rate, %	Current-account balance		Budget balance	Interest rates, %	Currency units, per \$	
	latest	qtr*	2018†	latest	latest	2018†		latest 12 months, \$bn	% of GDP 2018†	% of GDP 2018†	10-year gov't bonds, latest	Aug 15th	year ago
United States	+2.8 Q2	+4.1	+2.9	+4.2 Jul	+2.9 Jul	+2.4	3.9 Jul	-465.5 Q1	-2.7	-4.6	2.94	-	-
China	+6.7 Q2	+7.4	+6.6	+6.0 Jul	+2.1 Jul	+2.1	3.8 Q2§	+68.3 Q2	+0.6	-3.7	3.34§§	6.90	6.68
Japan	+1.0 Q2	+1.9	+1.2	-0.9 Jun	+0.7 Jun	+1.0	2.4 Jun	+201.8 Jun	+3.7	-3.8	0.09	110	111
Britain	+1.3 Q2	+1.5	+1.3	+1.2 Jun	+2.5 Jul	+2.4	4.0 May††	-106.3 Q1	-3.5	-1.8	1.38	0.79	0.78
Canada	+2.3 Q1	+1.3	+2.3	+3.8 May	+2.5 Jun	+2.2	5.8 Jul	-53.8 Q1	-2.6	-2.3	2.27	1.32	1.28
Euro area	+2.2 Q2	+1.5	+2.1	+2.5 Jun	+2.1 Jul	+1.7	8.3 Jun	+474.0 May	+3.4	-0.7	0.31	0.88	0.85
Austria	+3.4 Q1	+9.7	+2.9	+6.2 May	+2.0 Jun	+2.2	4.7 Jun	+9.5 Q1	+2.3	-0.4	0.57	0.88	0.85
Belgium	+1.3 Q2	+1.2	+1.6	+2.9 May	+2.2 Jul	+2.0	6.0 Jun	+0.2 Mar	nil	-1.1	0.73	0.88	0.85
France	+1.7 Q2	+0.6	+1.8	+1.7 Jun	+2.3 Jul	+1.9	9.2 Jun	-10.2 Jun	-0.6	-2.4	0.67	0.88	0.85
Germany	+1.9 Q2	+1.8	+2.1	+2.5 Jun	+2.0 Jul	+1.8	3.4 Jun‡	+323.5 Jun	+7.8	+1.1	0.31	0.88	0.85
Greece	+2.3 Q1	+3.1	+1.8	+1.2 Jun	+0.9 Jul	+0.7	19.5 May	-2.0 May	-1.2	-0.3	4.28	0.88	0.85
Italy	+1.1 Q2	+0.7	+1.2	+1.7 Jun	+1.5 Jul	+1.3	10.9 Jun	+56.1 May	+2.6	-2.0	3.16	0.88	0.85
Netherlands	+2.9 Q2	+2.8	+2.7	+3.5 Jun	+2.1 Jul	+1.6	4.8 Jun	+91.3 Q1	+9.6	+0.8	0.44	0.88	0.85
Spain	+2.7 Q2	+2.3	+2.7	-2.0 Jun	+2.2 Jul	+1.7	15.2 Jun	+20.7 May	+1.4	-2.7	1.27	0.88	0.85
Czech Republic	+3.4 Q1	+2.0	+3.5	+3.4 Jun	+2.3 Jul	+2.2	2.4 Jun‡	+0.9 Q1	+0.5	+0.9	2.14	22.8	22.3
Denmark	-1.4 Q1	+1.2	+1.6	-1.8 Jun	+1.1 Jul	+1.0	3.9 Jun	+19.5 Jun	+7.4	-0.7	0.28	6.59	6.35
Norway	+0.3 Q1	+2.5	+1.9	+0.6 Jun	+3.0 Jul	+2.3	3.8 May††	+22.8 Q1	+7.4	+5.4	1.74	8.48	7.96
Poland	+5.2 Q1	+3.6	+4.4	+6.8 Jun	+2.0 Jul	+1.8	5.9 Jul§	-0.1 Jun	-0.4	-2.2	3.16	3.84	3.67
Russia	+1.8 Q2	na	+1.7	+3.8 Jul	+2.5 Jul	+3.0	4.7 Jun§	+64.6 Q2	+4.0	+0.3	8.56	67.5	59.9
Sweden	+3.3 Q2	+4.2	+2.8	+5.4 Jun	+2.1 Jul	+1.9	7.2 Jun§	+16.8 Q1	+3.3	+1.1	0.48	9.23	8.10
Switzerland	+2.2 Q1	+2.3	+2.2	+9.0 Q1	+1.2 Jul	+0.8	2.6 Jul	+72.9 Q1	+8.9	+0.8	-0.03	0.99	0.97
Turkey	+7.4 Q1	na	+4.3	+7.0 May	+15.8 Jul	+12.8	9.7 May§	-57.4 Jun	-5.9	-2.8	21.17	6.05	3.54
Australia	+3.1 Q1	+4.2	+2.9	+4.3 Q1	+2.1 Q2	+2.2	5.3 Jul	-36.8 Q1	-2.5	-1.0	2.59	1.39	1.28
Hong Kong	+3.5 Q2	-0.9	+3.4	+1.0 Q1	+2.4 Jun	+2.1	2.8 Jun††	+14.3 Q1	+3.9	+1.9	2.19	7.85	7.82
India	+7.7 Q1	+10.1	+7.2	+7.0 Jun	+4.2 Jul	+4.6	5.6 Jul	-48.7 Q1	-2.4	-3.6	7.82	69.9	64.1
Indonesia	+5.3 Q2	na	+5.3	+1.0 Jun	+3.2 Jul	+3.5	5.1 Q1§	-24.2 Q2	-2.4	-2.5	7.98	14,600	13,358
Malaysia	+5.4 Q1	na	+5.7	+1.1 Jun	+0.8 Jun	+0.8	3.4 Jun§	+12.2 Q1	+2.9	-3.3	4.07	4.10	4.30
Pakistan	+5.4 2018**	na	+5.4	+2.7 May	+5.8 Jul	+5.2	5.9 2015	-18.0 Q2	-5.9	-5.4	10.00†††	124	105
Philippines	+6.0 Q2	+5.3	+6.6	+17.9 Jun	+5.7 Jul	+5.1	5.5 Q2§	-1.9 Mar	-1.6	-2.7	6.77	53.5	51.4
Singapore	+3.9 Q2	+0.6	+3.2	+7.4 Jun	+0.6 Jun	+0.8	2.1 Q2	+64.6 Q2	+18.6	-0.7	2.46	1.38	1.37
South Korea	+2.9 Q2	+2.8	+2.8	-0.4 Jun	+1.5 Jul	+1.7	3.7 Jun§	+72.5 Jun	+4.8	+1.0	2.50	1,128	1,140
Taiwan	+3.3 Q2	+3.1	+2.6	+0.4 Jun	+1.7 Jul	+1.6	3.7 Jun	+84.8 Q1	+13.4	-0.9	0.82	30.9	30.3
Thailand	+4.8 Q1	+8.1	+4.0	+4.7 Jun	+1.5 Jul	+1.2	1.1 Jun§	+50.3 Q1	+9.4	-2.9	2.65	33.3	33.3
Argentina	+3.6 Q1	+4.7	+1.3	-2.9 Jun	+30.9 Jul	+24.2	9.1 Q1§	-33.8 Q1	-4.7	-5.7	10.24	30.0	17.0
Brazil	+1.2 Q1	+1.8	+1.6	+3.5 Jun	+4.5 Jul	+3.9	12.4 Jun§	-13.9 Jun	-1.0	-7.0	9.15	3.92	3.20
Chile	+4.2 Q1	+4.9	+3.7	+5.0 Jun	+2.7 Jul	+2.4	7.2 Jun§††	-3.1 Q1	-1.6	-2.0	4.48	667	650
Colombia	+2.5 Q2	+2.3	+2.5	+1.3 Jun	+3.1 Jul	+3.3	9.1 Jun§	-9.8 Q1	-3.2	-1.9	6.86	3,053	2,982
Mexico	+2.7 Q2	-0.4	+2.2	+0.2 Jun	+4.8 Jul	+4.6	3.4 Jun	-15.9 Q1	-1.7	-2.3	7.88	19.3	17.9
Peru	+3.2 Q1	+5.6	+3.7	+10.5 May	+1.6 Jul	+1.4	6.6 May§	-2.9 Q1	-1.6	-3.5	na	3.32	3.25
Egypt	+5.4 Q1	na	+5.4	+3.8 May	+13.5 Jul	+16.1	9.9 Q2§	-7.7 Q1	-2.4	-9.6	na	17.9	17.7
Israel	+4.1 Q1	+4.7	+3.9	+4.2 May	+1.4 Jul	+1.3	3.9 Jun	+9.7 Q1	+2.2	-2.4	1.99	3.69	3.62
Saudi Arabia	-0.9 2017	na	+1.0	na	+2.1 Jun	+4.4	6.1 Q1	+19.9 Q1	+7.5	-3.9	na	3.75	3.75
South Africa	+0.8 Q1	-2.2	+1.5	+1.3 Jun	+4.6 Jun	+4.8	27.2 Q2§	-12.2 Q1	-3.2	-3.6	9.02	14.7	13.3

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. †††3-month moving average. §§5-year yield. †††Dollar-denominated bonds.

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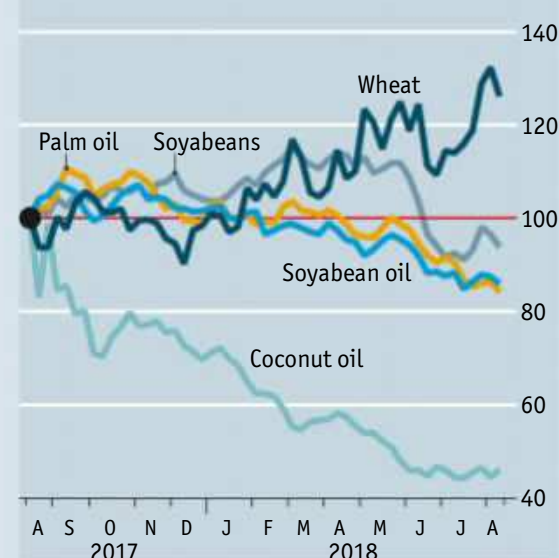
Markets

	Index Aug 15th	% change on one week	% change on Dec 29th 2017	
			in local currency	in \$ terms
United States (DJIA)	25,162.4	-1.6	+1.8	+1.8
China (Shanghai Comp)	2,723.3	-0.8	-17.7	-22.3
Japan (Nikkei 225)	22,204.2	-1.9	-2.5	-0.5
Britain (FTSE 100)	7,497.9	-3.6	-2.5	-8.7
Canada (S&P TSX)	16,148.5	-1.0	-0.4	-5.2
Euro area (FTSE Euro 100)	1,170.5	-3.6	-3.2	-8.8
Euro area (EURO STOXX 50)	3,359.1	-3.9	-4.1	-9.7
Austria (ATX)	3,287.3	-3.7	-3.9	-9.5
Belgium (Bel 20)	3,759.8	-2.7	-5.5	-11.0
France (CAC 40)	5,305.2	-3.6	-0.1	-5.9
Germany (DAX)*	12,163.0	-3.7	-5.8	-11.3
Greece (Athex Comp)	720.3	-5.0	-10.2	-15.4
Italy (FTSE/MIB)	20,906.4	-4.1	-4.3	-9.9
Netherlands (AEX)	552.7	-3.7	+1.5	-4.4
Spain (IBEX 35)	9,386.8	-3.7	-6.5	-12.0
Czech Republic (PX)	1,068.5	-1.5	-0.9	-7.7
Denmark (OMXCX)	914.5	+0.5	-1.4	-7.2
Hungary (BUX)	35,826.1	-3.1	-9.0	-18.3
Norway (OSEAX)	999.8	-2.7	+10.2	+6.3
Poland (WIG)	59,114.1	-1.6	-7.3	-16.0
Russia (RTS, \$ terms)	1,055.2	-5.3	-8.6	-8.6
Sweden (OMXS30)	1,593.6	-1.8	+1.1	-10.3
Switzerland (SMI)	8,926.2	-2.7	-4.9	-6.7
Turkey (BIST)	90,262.9	-6.9	-21.7	-50.9
Australia (All Ord.)	6,415.7	+1.0	+4.0	-3.5
Hong Kong (Hang Seng)	27,323.6	-3.7	-8.7	-9.1
India (BSE)	37,852.0	-0.1	+11.1	+1.5
Indonesia (IDX)	5,816.6	-4.6	-8.5	-15.0
Malaysia (KLSE)	1,785.9	-1.0	-0.6	-2.0
Pakistan (KSE)	42,446.6	-0.7	+4.9	-6.3
Singapore (STI)	3,234.1	-2.8	-5.0	-8.1
South Korea (KOSPI)	2,258.9	-1.8	-8.5	-13.1
Taiwan (TWI)	10,716.8	-3.2	+0.7	-2.9
Thailand (SET)	1,676.3	-2.6	-4.4	-6.5
Argentina (MERV)	27,008.2	+1.2	-10.2	-43.6
Brazil (BVSP)	77,077.9	-2.6	+0.9	-14.7
Chile (IGPA)	26,645.9	-0.9	-4.8	-12.2
Colombia (IGBC)	11,946.5	-2.0	+4.1	+1.7
Mexico (IPC)	48,556.7	-2.7	-1.6	-0.2
Peru (S&P/BVL)*	19,533.4	-3.4	-2.2	-4.6
Egypt (EGX 30)	15,357.4	-3.2	+2.3	+1.4
Israel (TA-125)	1,403.6	-1.6	+2.9	-3.2
Saudi Arabia (Tadawul)	7,865.7	-4.2	+8.8	+8.8
South Africa (JSE AS)	55,646.2	-3.7	-6.5	-21.0

Agricultural commodities

Prices of edible oils have fallen over the past year. This reflects rising production throughout the 2017-18 season, after weakness the year before when El Niño, a climatic phenomenon, played havoc with crops. An ample supply of palm oil in Indonesia and Malaysia, as well as of coconut oil in the Philippines, has dampened prices. In July the price of soybeans hit a ten-year low, because of concerns that impending Chinese tariffs would reduce demand from the world's largest consumer of them. The price of wheat, on the other hand, has risen. Scorching temperatures have created drier conditions for the crop, with smaller European harvests likely.

August 15th 2017=100, \$ terms



Sources: CME Group; Thomson Reuters

Other markets

	Index Aug 15th	% change on one week	% change on Dec 29th 2017	
			in local currency	in \$ terms
United States (S&P 500)	2,818.4	-1.4	+5.4	+5.4
United States (NASComp)	7,774.1	-1.4	+12.6	+12.6
China (Shenzhen Comp)	1,481.8	+1.0	-22.0	-26.4
Japan (Topix)	1,698.0	-2.7	-6.6	-4.7
Europe (FTSEurofirst 300)	1,485.6	-2.7	-2.9	-8.5
World, dev'd (MSCI)	2,115.7	-2.3	+0.6	+0.6
Emerging markets (MSCI)	1,023.4	-5.2	-11.7	-11.7
World, all (MSCI)	508.3	-2.7	-0.9	-0.9
World bonds (Citigroup)	926.7	-0.7	-2.5	-2.5
EMBI+ (JPMorgan)	777.5	-1.9	-7.0	-7.0
Hedge funds (HFRX)	1,260.6 [§]	-0.3	-1.2	-1.2
Volatility, US (VIX)	14.6	+10.9	+11.0	(levels)
CDSs, Eur (iTRAXX) [†]	71.5	+12.3	+58.4	+49.2
CDSs, N Am (CDX) [†]	62.6	+8.0	+27.6	+27.6
Carbon trading (EU ETS) €	18.1	+2.8	+122.5	+109.6

Sources: IHS Markit; Thomson Reuters. *Total return index.
[†]Credit-default-swap spreads, basis points. [§]Aug 14th.

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The Economist commodity-price index

2005=100

2005=100

			% change on	
	Aug 7th	Aug 14th*	one month	one year
Dollar Index				
All Items	143.1	141.0	-0.9	-1.5
Food	148.1	145.4	+1.0	-1.5
Industrials				
All	137.9	136.4	-2.9	-1.6
Nfa†	136.2	133.3	-4.6	+2.6
Metals	138.7	137.7	-2.2	-3.2
Sterling Index				
All items	201.0	201.1	+2.3	-0.8
Euro Index				
All items	153.5	154.1	+1.8	+1.4
Gold				
\$ per oz	1,211.9	1,197.7	-2.4	-5.8
West Texas Intermediate				
\$ per barrel	69.2	67.0	-1.5	+41.0

Sources: Bloomberg; CME Group; Cotlook; Darmann & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. *Provisional
[†]Non-food agricultural.

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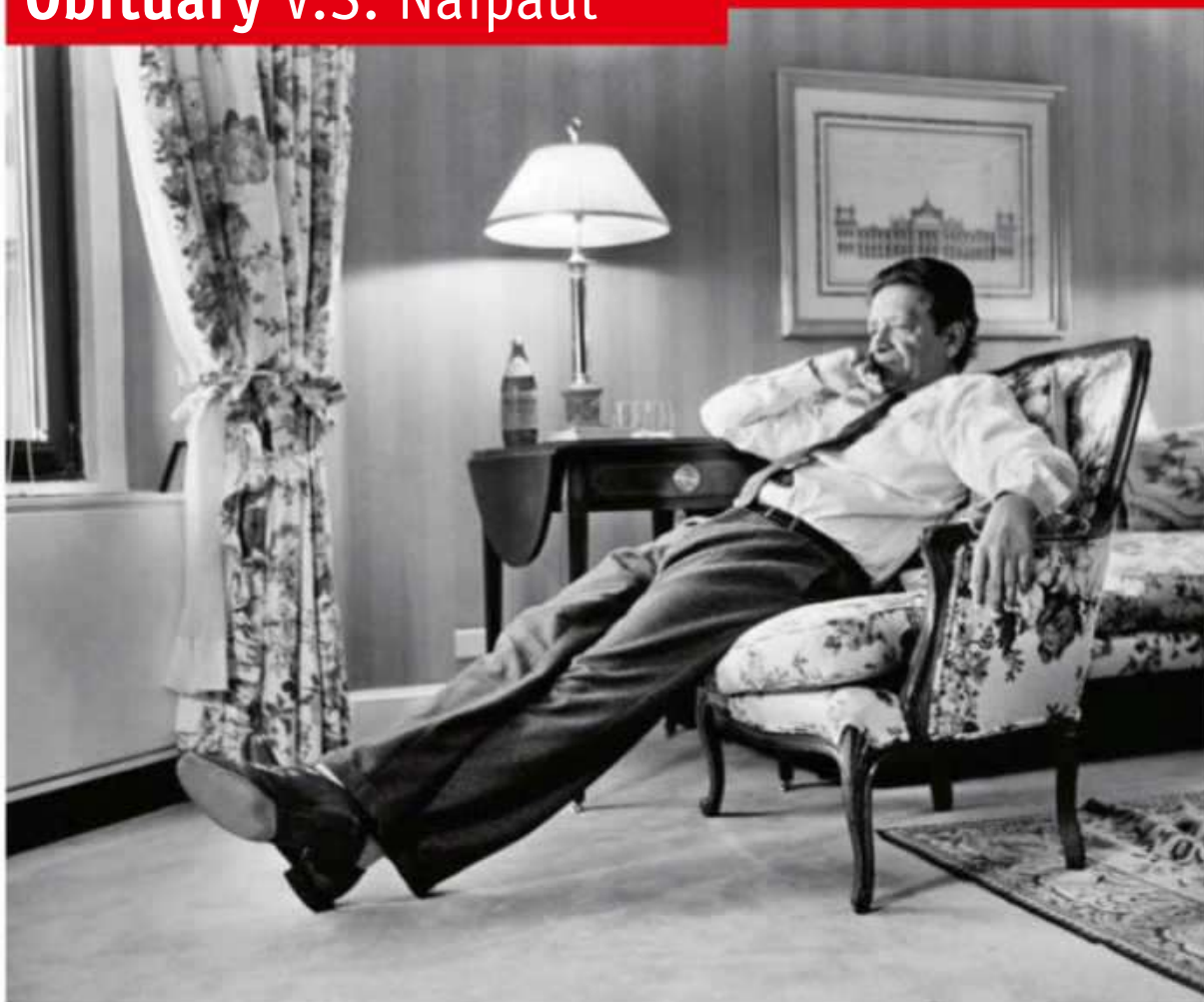
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No settled place

Vidiadhar Surajprasad Naipaul, writer, died on August 11th, aged 85

HE WAS struck again and again by the wonder of being in his own house, the audacity of it: to walk down a farm track in Wiltshire to his own front gate, to close his doors and windows on his own space, privacy and neatness, to walk on cream carpet through book-lined rooms where, still in a towelling robe at noon, he could summon a wife to make coffee or take dictation. Outside, he could wander over lawns to the manor house, or a lake where swans glided, or visit the small building that served as his wine cellar. Vidia, his friends called him; he disliked his name, but liked the derivation, from the Sanskrit for seeing and knowing. He looked hard, with his eagle stare, and saw things as they were.

The house, which he rented, was paid for by his books, more than 30 of them. He had not taken up writing to get rich or win awards; that was a dreadful thought. Dreadful! To write was a vocation. Nonetheless his fourth book, "A House for Mr Biswas", based on his father's search for a settled place, had luckily propelled him to fame, and in 2001 he had won the Nobel prize for literature. He had been knighted, too, though he did not care to use the title. Hence the country cottage, as well as a duplex in Chelsea. For, as Mr Biswas said, "how terrible it would have been...to have lived without even attempting to lay claim

to one's portion of the earth."

Which portion of the earth, though, was the question. Mr Naipaul's ancestors were Indian, but that part lay in darkness, pierced only by his grandmother's prayers and quaint rituals of eating. Journeys to India later, which resulted in three books excoriating the place, convinced him that this was not his home and never could be. He was repelled by the slums, the open defecation (picking his fastidious way through butts and twists of human excrement), and by the failure of Indian civilisation to defend itself. His place of birth and growth was Trinidad, principally Port of Spain, the humid, squalid, happy-go-lucky city, sticky with mangoes and loud with the beat of rain on corrugated iron, that provided the comedy in "Biswas" and "Miguel Street". But he had to leave. England was his lure, as for all bright colonial boys who did not know their place, and his Trinidadian accent soon vanished in high-class articulation; but Oxford was wretched and London disappointing. He kept leaving, travelling, propelled by restlessness. Books resulted, but not calm. Not calm.

Much of his agitation, even to tears, came from the urge to write itself; what he was to write about, and in what form. The novel was exhausted. Modernism was dead. Yet literature had taken hold of him,

a noble purpose to his life, the call of greatness. He had moved slowly into writing, first fascinated by the mere shapes of the letters, requesting pens, Waterman ink and ruled exercise books to depict them; then intrigued by the stories his father read to him; then, in London, banging out his first attempts on a BBC typewriter. For a long time he failed to devise a story. Beginnings were laborious, punctuation sacred: he filleted an American editor for removing his semicolons, "with all their different shades of pause". Once going, though, he wrote at speed, hoping to reach that state of exaltation when he would understand himself, as well as his subject.

Truth-telling, defying the darkness, was his purpose. His travels through the post-colonial world, to India, Africa, the Caribbean and South America, made him furious: furious that formerly colonised peoples were content to lose their history and dignity, to be used and abandoned, and to build no institutions of their own, like the Africans of "In a Free State" squealing in their forest-language in the kitchens of tourist hotels. He mourned the relics of colonial rule, the overgrown gardens and collapsed polo pavilions, the mock-Tudor lodges and faded Victorian bric-à-brac he saw in Bundi or Kampala; but even more than these, the loss of human potential.

Many people were offended, and he cared not a whit whether they were or not. It was his duty and his gift to describe things exactly: whether the marbled endpaper of a dusty book, the stink of bed bugs and kerosene, the way that purple jacaranda flowers shone against rocks after rain, or the stupidity of most people. He resisted all editing, of writing or opinions. Without apology, he also slapped his mistress once until his hand hurt. Severity and pride came naturally to his all-seeing self.

To the plantation

The further purpose of writing was to give order to his life. He carefully recorded all events, either in his memory for constant replays or in small black notebooks consigned to his inside jacket pocket. Converting these to prose imposed a shape on disorder; it provided a structure, a shelter, protection. His rootless autobiographical heroes often dreamed of such calm places: a cottage on a hill, with a fire lit, approached at night through rain; a room furnished all in white, looking towards the sea; or in "The Mimic Men" the most alluring vision, an estate house on a Caribbean island among cocoa groves and giant *immortelle* trees, whose yellow and orange flowers floated down on the woods. Though he ended his days in Wiltshire, more or less content, it was somebody else's sun he saw there, and somebody else's history. His deep centre remained the place from which he had fled. ■

If You Owned a U.S. Dollar LIBOR-Based Instrument Between August 2007 and May 2010

Lawsuits and Settlements Totaling \$340 Million Could Affect You

There are lawsuits impacting individuals and institutions that entered into over-the-counter financial derivative and non-derivative instruments directly with 18 banks and that received payments tied to U.S. Dollar LIBOR. Settlements totaling \$340 million have been reached with Deutsche Bank Aktiengesellschaft and HSBC Bank plc. Earlier settlements were reached with Barclays and Citibank. The remaining 14 Non-Settling Defendants include: Bank of America, Bank of Tokyo-Mitsubishi, Citizens Bank, Credit Suisse, HBOS, JPMorgan Chase, Lloyds, Norinchukin, Rabobank, Royal Bank of Canada, Royal Bank of Scotland, SocGen, UBS, and WestLB.

A Litigation Class continues to assert claims against Bank of America, N.A. and JPMorgan Chase Bank, N.A. The lawyers for the Litigation Class will have to prove their claims in Court and a trial will be scheduled for a later date. The Litigation Class is seeking to recover money for its members.

What are the lawsuits about?

The litigation claims that the banks manipulated the U.S. Dollar LIBOR rate during the financial crisis, artificially lowering the rate for their own profit, which resulted in class members receiving lower interest payments for their U.S. Dollar LIBOR-based instruments from the banks than they should have. Plaintiffs assert antitrust, breach of contract, and unjust enrichment claims. Deutsche Bank, HSBC, Bank of America, and JPMorgan Chase deny all claims of wrongdoing.

Who is included in the lawsuits and Settlements?

There are two groups that are impacted by these lawsuits.

Litigation Class: You are included if you (individual or entity) reside in the U.S. and directly purchased certain U.S. Dollar LIBOR-based instruments (interest rate swaps or bond/floating rate notes) from Panel Banks (Deutsche Bank, HSBC, Barclays, Citibank, Bank of America, Bank of Tokyo-Mitsubishi, Credit Suisse, HBOS, JPMorgan Chase, Lloyds, Norinchukin, Rabobank, Royal Bank of Canada, Royal Bank of Scotland, SocGen, UBS, and WestLB), or any of their subsidiaries or affiliates; and pursuant to the instruments, a Panel Bank paid you interest indexed to a 1-month or 3-month U.S. Dollar LIBOR rate set at any time between August 2007 and August 2009. (This means you must have owned the instrument(s) between August 2007 and August 2009.)

Settlement Classes: You are included if you (individual or entity) directly purchased certain U.S. Dollar LIBOR-based instruments from Deutsche Bank, HSBC, Barclays, Citibank, Bank of America, Bank of Tokyo-Mitsubishi, Citizens Bank, Credit Suisse, HBOS, JPMorgan Chase, Lloyds, Norinchukin, Rabobank, Royal Bank of Canada, Royal Bank of Scotland, SocGen, UBS, or WestLB (or their subsidiaries or affiliates) in the United States; and owned the

instruments at any time between August 2007 and May 2010. The instruments in the Settlement Class include certain interest rate swaps, forward rate agreements, asset swaps, collateralized debt obligations, credit default swaps, inflation swaps, total return swaps, options, and bonds/floating rate notes.

What do the Settlements provide?

The Settlements will create Settlement Funds totaling \$340 million that will be used to pay eligible Class Members who submit valid claims. Additionally, Deutsche Bank and HSBC will cooperate with the Plaintiffs in their ongoing litigation against the Non-Settling Defendants.

How can I get a payment?

You can submit a Proof of Claim online or by mail. The deadline to submit a Proof of Claim is **December 20, 2018**. You are entitled to receive a payment if you have a qualifying transaction with Deutsche Bank, HSBC, Barclays, Citibank, Bank of America, Bank of Tokyo-Mitsubishi, Citizens Bank, Credit Suisse, HBOS, JPMorgan Chase, Lloyds, Norinchukin, Rabobank, Royal Bank of Canada, Royal Bank of Scotland, SocGen, UBS, and WestLB (or their subsidiaries or affiliates). At this time, it is unknown how much each Class Member who submits a valid claim will receive.

There is no money available now for the Litigation Class and no guarantee that there will be. If money or benefits are obtained in a future trial, you will be notified about how to ask for a share.

What are my rights?

If you are a member of the Settlement Classes and you do not file a timely claim, you will lose your right to receive money or benefits from the \$340 million in settlements with Deutsche Bank and HSBC. If you are a member of the Litigation Class and elect to opt out of the Litigation Class, you will not be eligible for any money or benefits obtained in a future trial against, or class settlements with, JPMorgan Chase or Bank of America, unless you timely file your own lawsuit. If you would like to retain your right to file your own lawsuit against Deutsche Bank, HSBC, JPMorgan Chase, or Bank of America, you must opt out of the appropriate Class by **September 28, 2018**. If you stay in the Settlement Classes, you may object to the Settlements by **September 28, 2018**.

The Court will hold a hearing on **October 25, 2018** to consider whether to approve the Settlements and approve Class Counsel's request of attorneys' fees of up to one-third of the Settlement Funds, plus reimbursement of costs and expenses. You or your own lawyer may appear and speak at the hearing at your own expense. More information is available about the Settlement Classes on the website, www.USDollarLiborSettlement.com, and in the Long Form Notice accessible on that website, or by calling 1-888-568-7640.